



# Annual Report for 2016

Prepared by Maggie Spizzirri  
Revelstoke Bear Aware Coordinator



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## 1. Summary

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2016 was a very active year for Revelstoke Bear Aware. There were 642 reports of bears. The Conservation Officer Service destroyed 24 black bears in 2016, and there were unconfirmed reports of residents destroying further bears. There were several incidents where bears damaged property and vehicles or showed aggression towards humans.

Garbage continues to be the number one attractant for bears in Revelstoke, 12 of the destroyed bears were killed as a result of becoming conditioned to eating garbage. Most reports that concerned aggressive bears also concerned garbage.

The city has not yet chosen to implement a bear resistant garbage collection system in Revelstoke. Revelstoke Bear Aware and the Conservation Officer Service agree that the implementation of a bear resistant garbage system must be a priority before there is an incident concerning human safety. Revelstoke Bear Aware recommends that the process of bear proofing the garbage system should begin in mobile home parks where installation of centralized bear resistant bins is relatively easy and may even be more cost effective per house than curb side pickup from every house.

Revelstoke Bear Aware delivered 12 presentations, contributed to 2 City Council meetings, attended 7 public events, and presented at 3 workshops. Through these events we reached a total 1842 people.

A door-to-door campaign was conducted and Bear in Area lawn signs were deployed in areas where bears had been reported. The Revelstoke Bear Aware Facebook page was utilized and post views reached over 109,500 views. Revelstoke Bear Aware also gave numerous interviews to local and global media outlets. The Gleaning Project was also very active this year and also encouraged people to glean their own trees and donate their fruit to the project.

A garbage survey was made for each of the 4 collection rounds during the fall. Garbage cans left out overnight in contravention of the Solid Waste and Recycling Bylaw (#2006) were tagged with a sticker informing the owner that garbage is a bear attractant and asking them to secure their can until collection day. Bear Aware worked with the City of Revelstoke to increase bylaw enforcement due to the high bear activity and numerous residents and businesses were fined.

The Revelstoke Bear Aware program is strongly supported by volunteers. This year 53 volunteers gave a total of 171 volunteer hours to Revelstoke Bear Aware.

Included in this report are recommendations for 2017 on page 18.

## *2. About Revelstoke Bear Aware Society*

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### **Purpose of the Society**

The purpose of Revelstoke Bear Aware Society is to reduce bear/human conflict in and around the city of Revelstoke by:

- Identifying and eliminating or reducing human related bear attractants;
- Educating Revelstoke citizens about:
  - the importance of reducing bear attractants on their properties and in and around the community,
  - how to recognize bear attractants on their properties and within the community, and,
  - how to eliminate or reduce bear attractants for which they are responsible.

We accomplish our purposes by operating a community education program, and by working in partnership with other agencies including City of Revelstoke, Parks Canada, Columbia Shuswap Regional District, the BC Conservation Officer Service, and other Revelstoke-based initiatives. Collectively, these agencies are called the “Revelstoke Bear Management Committee”. Revelstoke Bear Aware Society was founded in 2004, as a result of the Revelstoke Bear Management Committee recognizing that a registered non-profitable society with charitable status would provide focus for the Committee, and allow fundraising in support of keeping our community safe and our bears wild. Although we are now independent of WildSafeBC, our new Coordinator, Maggie Spizzirri, attended their training course and we occasionally call up Frank Ritcey, Provincial WildSafeBC Coordinator, to discuss issues that he may have encountered before.

## **Board of Directors for 2016**

In addition to the Annual General Meeting, the Board of Directors met 6 times.

List of Directors:

Loni Parker, President  
Brian Gadbois, Vice-President  
Jackie Morris, Treasurer Secretary  
Marcia Woods, Director  
Kari Martin, Director  
Sue Davies, Director  
Cheryl Fry, Director

## **Community Coordinators in 2016**

Our Community Coordinator is a part time contractor, who is responsible for planning and carrying out our programming, working with our partners as needed, and coordinating the functions of the society. Sue Davies was our Community Coordinator until May, when she was replaced by Maggie Spizzirri. We owe many thanks to our Coordinators for representing us so well in the community!

## **Supporters of Revelstoke Bear Aware in 2016**

Revelstoke Bear Aware benefits from the large number of volunteer hours contributed by Board of Directors and from representatives of agencies of the Revelstoke Bear Committee. It would not have been possible to deliver the Revelstoke Bear Aware message to so many members of the community without the support from volunteers. Community volunteers contributed time to the Gleaning Program, helped with garbage tagging and door-to-door visits. We estimate that in 2016 our volunteers contributed 171 hours.

The Revelstoke Bear Aware Society would like to express gratitude to the following organizations for financial contributions made to Revelstoke Bear Aware in 2016:



Gaming Policy and Enforcement Branch



Lisa Longinotto of Williamson Lake Campground Management.

Revelstoke Bear Aware would also like to express gratitude to the following individuals and organizations for valuable in-kind support provided to the program:

- Revelstoke Bear Aware board members: Loni Parker, Jackie Morris, Brian Gadbois, Marcia Woods, Sue Davies, Kari Martin, and Cheryl Fry;

- Revelstoke Bear Aware agency advisors: Councillor English (City of Revelstoke), Dan Bartol and Alex Desjardins (Conservation Officer Service), and Sarah Boyle, Lisa Larson, and Tawnya Hewitt (Parks Canada);
- Parks Canada for providing board room meeting space, printing, and also providing advice and expertise;
- Revelstoke Credit Union Insurance for providing board room meeting space.
- The Revelstoke Current, StokeFM, EZ Rock Radio, the Revelstoke Review, Reved Quarterly, Revelstoke Mountaineer and Revelstoke Cable TV for their continued support and promotion of the program;
- The Local Foods Initiative, and the North Columbia Environmental Society for their continued in-kind support;
- Patti Larson and Community Connections Food Bank for their continued support of the Gleaning Project;
- Local volunteers, for fruit picking, book keeping, expert advice, and IT help;
- School District 19 and the preschools of Revelstoke for inviting the program into their classrooms;
- Darren Komonoski, Tina Miertsch, Teresa LeRose, Cindy Floyd, and City staff for their support, help and input;
- Visitor Information Centre staff and the Welcome Wagon;
- Columbia Shuswap Regional District, in particular Carmen Fennel from the Columbia Shuswap Region Solid Waste Management Department;
- Current WildSafeBC and independent bear awareness group coordinators throughout BC for their ideas, support, and hard work throughout the season;
- Previous Revelstoke Bear Aware Coordinators in Revelstoke: Karen Bennett, Debby Robinson, Francis Maltby, Paula Couturier, Todd Arthurs, Steve Kent, Abby Pond, Penny-Page Brittin, Janette Vickers and Sue Davies;
- Concerned citizens of Revelstoke for their input, ideas, calls and emails of support and reports of bear activity.

### 3. Revelstoke Bear Aware activities in 2016

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#### Personal contacts

In 2016 Sue Davies and Maggie Spizzirri attended 7 public events including the community Farmers Market, Parks Canada Day, Revelstoke Garlic Fest and Timber Days. We also delivered 12 classroom presentations and 12 small-group activity sessions to grade 1-2 children at the Kokanee Fish Festival. We continued our association with the Local Foods Initiative (LFI) contributing bear aware messaging to their Garden Guru series of workshops throughout the summer. Revelstoke Bear Aware also presented our message to the international students at Revelstoke Secondary School. Revelstoke Bear Aware attended public meetings regarding the proposed wildlife attractant bylaw and presented our 2015 annual report to the City Council.

Through these presentations and events a total of 1,842 people were reached. The below table provides some details of the presentations, events and festivals and the number of people who attended each event.

Date	Event	Details	People in Attendance
June	City council 2015 Annual Report	Presentation	22
June	Timber Days	Public display	172
June	Farmers Market	Public display	150
July	Parks Day	Public display	100
August	Farmers Market	Public display	200
August	Junior Naturalists	Presentations x 2	24
September	GarlicFest	Public display	372
September	International students	Presentation	15

Date	Event	Details	People in Attendance
September	Kokanee Fish Festival	12 small-group presentations	96
October	Farmers Market	Public display	156
October	Begbie View Kindergarten Class	Presentation	25
October	Columbia Park Grade 5 Class	Presentation	25
October	Revelstoke Community Centre Preschool	Presentation	11
October	Chamber of Commerce Luncheon	Presentation	27
October	Columbia Park Kindergarten Class	Presentation	17
November	City Environmental Advisory Committee	Presentation	7
<b>Total</b>			<b>1397</b>

## Media contacts

### Facebook

During the season our Facebook page gained more than 350 new “likes” with 583 people following our page. Our posts during 2016 generated over 109,500 post views for the season. The fast growth of our Facebook page, the number of times information has been shared by other Facebook users, and the high speed of information dissemination through this system makes Facebook an excellent way to communicate almost real-time information about bear activity and conflicts in Revelstoke. Visit and follow our Facebook page at: [www.facebook.com/revelstokebearaware](http://www.facebook.com/revelstokebearaware)

### Website

The Revelstoke Bear Aware website ([www.revelstokebearaware.org](http://www.revelstokebearaware.org)) continues to provide a strongly informative resource for Revelstoke residents. There were 5,399 separate users who visited the Revelstoke Bear Aware website over the season, with 12,945 page views. The website provides information on how to manage specific bear attractants as well as a map of bears in the Revelstoke area. At the end of 2016, the

map has been converted to the WildSafeBC WARP map to provide the most up to date information generated from both the Conservation Officer Service and Revelstoke Bear Aware.

### *Mass media*

Revelstoke Bear Aware issued 1 press release in 2016 (see Appendix 1). Maggie Spizzirri was interviewed 12 times over the season by both local and national stations. National stations include: CBC, CTV, Calgary CTV, Corus Radio, Canadian National. Locally this included three live talkback shows on Stoke FM and one on EZRock. Due to the increased number of bears shot in a short period of time large national media stations such as Reuters and others picked up the CO activity and reported on the story.

In 2016, Revelstoke Bear Aware purchased print advertisements in the Revelstoke Leisure Guide - summer and fall editions. Online advertisements in the Current and the Review were also purchased for the AGM in April. A “link button” is present on The Current website throughout the year. StokeFM advertising consisted of ads running several times per day during the summer and also several opportunities for the coordinator to appear on the morning show discussing bear aware issues. Revelstoke Bear Aware also posted advertisements on the Stoke List to promote particular events and general bear awareness.

A Revelstoke Bear Aware logo continues to appear on the City garbage schedule encouraging residents to secure their garbage during the months from April - November. Reminders about garbage and fruit as an attractant are also sent out on the new City of Revelstoke garbage app.

## **More ways we worked in the community**

### *Gleaning Project*

The Gleaning Project gathers surplus fruits from the community, helping to reduce bear attractants. Residents with excess fruit can contact Revelstoke Bear Aware to arrange volunteers to harvest the fruit. The volunteers receive some of the fruit and the remaining fruit is donated to Community Connections Food Bank. The project also invites all residents to donate their extra fruit, berries and vegetables directly to the Food Bank.

The Gleaning Project collaborated with the Local Food Initiative (LFI) this year to harvest and preserve Revelstoke’s fresh fruit. The role of Revelstoke Bear Aware was primarily to coordinate a volunteer workforce, use our door to door campaign and other advertising to seek out the properties that required gleaning and provide equipment such as new ladder and rake. While the LFI coordinator managed the volunteers during harvest and preservation of the fruit. Revelstoke Bear Aware also purchased a new 6’

orchard specific ladder to allow for easier access of fruit and better stability as well as a new rake for a cost of approximately \$250.

The Gleaning Project has been a very successful part of the Revelstoke Bear Aware program in Revelstoke:

- 18 properties were gleaned by the project in 2016,
- 2000 lbs. of fruit was harvested,
- 1200 lbs. went to the Food Bank,
- the remainder of fruit went to the volunteers who harvested it,
- 45 volunteers collectively donated 62 hours to the project during the season.

### *Bear in area signs*

Bear in Area lawn signs were again deployed to areas where bear activity was reported. Signs were deployed at 31 locations during the season for an average of 5 days each, giving a total of 155 sign/days in 2016.

10 signs went missing this year to be used in non-Revelstoke Bear Aware related demonstrations or were taken due to a misconception that bears would be killed due to the signs being up and informing Conservation Officers where bears are around the City. Due to signs being taken more will have to be purchased in 2017.

Sign placement is directed from either the Conservation Officer Service or residents of Revelstoke to: 1) let people know where bears are active, and 2) remind people to secure bear attractants in the immediate area of bear foraging. Feedback from school students during presentations suggests that the signs continue to be an effective way to do this.

### *Door-to-door and garbage tagging*

A door-to-door campaign was mounted in 2016 and 452 houses were visited throughout May-October. Residences received information about being bear aware and some residences received cautions about complying with wildlife attractant laws and the Revelstoke garbage bylaw. Houses where fruit trees were evident also received information about the Gleaning Project and the necessity of harvesting fruit as soon as it is ripe. A garbage survey was made for each of the 4 collection rounds during the fall. Information was left regarding the garbage bylaw at each of these residences who had left their cans out overnight.

A special thank you goes to volunteer Cheryl Fry who helped in canvassing the Big Eddy neighbourhood.

### *Printed materials*

Revelstoke Bear Aware was able to deliver its message through a variety of initiatives in 2016 including letters and pamphlets in the Welcome Wagon and at the information centre, on notice boards, at B&Bs, new citizen's groups, and local businesses.

New gleaning post cards and door hangers were re-printed. New camping rack cards will need to be re-printed in 2017 as they are a popular item to provide campers proper bear attractant management information. A new sign will also be on the garbage truck which will appear in early 2017 reminding residents to be bear aware.

## *4. Summary of bear activity in 2016*

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### **Overview of the season**

In 2016 there were 642 reports regarding bears made to the RAPP line and to Revelstoke Bear Aware (Table 1). 24 black bears were killed throughout the season, including a very public shooting in downtown Revelstoke which sparked a media frenzy from outlets across Canada and even in other countries. The first reported bear sighting in 2016 was on April 11 and the last reported bear sighting was on December 22.

Revelstoke was not the only city to experience higher than usual bear activity in 2016. The unusually long warm season sparked a high number of human/wildlife conflicts province wide. Anecdotally, local people reported a reduced huckleberry crop at upper elevations, which indicates wild food resources may have been scarcer than in other years. Bears came into town and found garbage and fruit. Bears in town became habituated to this food and the urban environment, and lost their sense of caution around humans.

Many Revelstokians felt anger and shame that our community was the cause of 24 bear deaths. Two Facebook sites were created where people raved about the behaviours of various agencies. A march was held downtown to protest the killing of bears.

*Table 1. The number of reports concerning bears and bear mortality, between 2005 and 2016 in Revelstoke and surrounding area.*

<b>Year</b>	<b>Total Bear Sightings Reported</b>	<b>Bear Mortality</b>
2005	50	3
2006	147	11
2007	143	11
2008	162	13
2009	34	2
2010	212	6
2011	221	10
2012	125	2
2013	41	2
2014	305	10
2015	104	3
2016	642	24

After a high bear activity year, the year ended on a positive note with a black bear cub being sent to the Northern Lights Rehabilitation Centre. This occurred as the cub was not food conditioned or habituated. Once food conditioning and habituation sets in, cubs are no longer a rehabilitation candidate. Revelstoke Bear Aware encourages the reporting of bears to the Report All Poachers and Polluters (RAPP) Line and / or to Revelstoke Bear Aware so that each situation can be monitored and the best solution provided for that bear or cub.

**Bear attractants and waste management in 2016**

Each report to the RAPP line or Revelstoke Bear Aware details if it was a ‘sighting only’ or if a bear attractant was involved; garbage, fruit tree, livestock, pet food, outdoor freezers and fridges, compost, bird feeders, BBQ’s, beehives, vegetable gardens, spilled grain on the train tracks, or Kokanee at Bridge Creek (Table 2).

Table 2. Bear attractants reported between 2009 and 2016 in Revelstoke and surrounding area.

Attractant Reported	2009	2010	2011	2012	2013	2014	2015	2016
Garbage	12	76	70	28	10	69	29	225
Fruit & Nut Trees	3	20	19	1	5	57	6	104
Livestock/Chickens	1	5	4	1	0	4	4	4
Pet Food	1	2	0	0	2	3	1	0
Outdoor Freezers	1	2	2	1	0	3	1	2
Compost	1	3	5	3	0	2	1	1
Birdfeeders	3	1	3	0	1	2	0	0
BBQ	0	0	0	1	0	0	1	0
Beehives	0	0	0	0	0	0	0	0
Vegetable Garden	0	2	1	0	0	1	0	0
Grain on Train Tracks	0	3	0	0	0	4	1	0
Other	0	1	0	0	1	5	1	0
Sighting Only	14	99	112	72	22	143	57	306

In 2016 the City of Revelstoke moved from a revolving garbage collection schedule to a pick-up on the same day each week schedule. This is a positive improvement to the garbage collection system. It was noted that garbage collection times in some areas were often ranging well into the afternoon on pick up day contributing to bears learning the pattern of potential food sources and access to garbage on collection day in the scheduled area.

Garbage continues to be the greatest bear attractant in Revelstoke mostly due to garbage being stored in wildlife accessible areas such as on porches and by back doors. Few incidents occurred where bears accessed garbage put out for collection. Many people do not have secure storage for their garbage and should keep all foodstuffs frozen until collection day. However, there are still a significant proportion of people leaving their garbage accessible to bears even though they have garages or sheds that could be used to secure it. Proactive action by the bylaw or conservation officer may be required to enforce the Solid Waste and Recycling bylaw, which states that garbage must be secured from wildlife.

The pilot project in Johnson Heights ended with the result of a centralized bear resistant garbage bin being provided. Johnson Heights residents reported that even with the increased bear activity in town, they felt that bear activity in Johnson Heights decreased in 2016 in large part due to the centralized bin (Appendix 2). We have noted that the Johnson Heights bin has occasionally overfilled. This is because people did not throw their garbage into the back of the bin; garbage at the front portion of the bin piled up and the lid would not close properly. Residents have been made aware of the need to throw in garbage such that the bin fills properly.

Fruit trees and even nut trees caused concern this year. The Gleaning Program provided relief to pro-active residents who were not able to glean their own tree this year. The combined efforts of Revelstoke Bear Aware and the Local Foods Initiative worked hard to ensure that all ripe fruit was harvested in a timely manner. However, there are still many unmanaged fruit trees on public and private property that caused issues including the large cherry tree at Kovach Park which sparked 2 instances of bears bluff charging at families.

There were instances of property damage, including bears tearing at doors, siding and even entering houses through basement windows and unlocked doors. There were 6 instances of bears breaking into locked and unlocked cars. There were numerous reports of bears that appeared habituated to humans and were very unconcerned in the presence of honking horns etc., and 7 reports of bears showing aggression to people, growling and/or bluff charging. These instances occurred mainly in three locations: downtown, City Hall and at Kovach Park.

Most instances of bears becoming aggressive or damaging property appeared to be associated with bears having accessed garbage on a regular basis. There is considerable concern that these sorts of conflicts may result in human injury if garbage continues to be accessible to bears in the future.

Backyard chickens resulted in 4 confirmed reports of bear activity with 2 reports concerning the same coop. Coop management from this owner has changed after discussion with Revelstoke Bear Aware and the bear moved away from the coop after the changes were made and no further incidents occurred in that location. Chickens are now addressed in the Animal Control and Licensing Bylaw #1758 and in 2017 we anticipate changes in City bylaws to address wildlife attractants. We expect to see few bear problems due to chickens and chicken coops if residents comply with the bylaws.

## *5. Future directions for reducing bear/human conflicts in Revelstoke*

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### **Wildlife attractant bylaw**

The death of 24 bears in 2016 demonstrated the need for City bylaws to address bear attractants in addition to garbage. We encouraged the City to develop a wildlife attractants bylaw and provided examples from other communities. We will continue to assist the City as needed to see this bylaw come into effect before bears are active in 2017. Revelstoke Bear Aware will develop programming to assist residents in becoming compliant with the bylaw.

### **Future of waste management**

Revelstoke Bear Aware will continue to request improvements to Revelstoke's waste handling system. We feel that a substantial gain in bear attractant management will occur simply by requiring all mobile home parks, campgrounds, undeveloped and new subdivisions and developments to install a centralized dumpster. A preliminary cost calculation for converting a mobile home park with approximately 80 homes, indicated that using one centralized bin could reduce costs for garbage pick up.

Rental housing, vacation rentals, and illegal suites are also in need of consideration due to the fact that these tenants will not be familiar with local bylaws nor will they be able to adhere to schedules or the securing of garbage. Owners should be held responsible for such management by purchasing a bear resistant bin to store garbage. There is currently an issue in Upper Arrow Heights where residents are concerned about vacation rentals leaving garbage out as there were two black bears still roaming the streets and getting into garbage in late December. These bears will not go into hibernation if food is readily available to them, and unfortunately, as the winter continues, these bears will not be able to find enough food to survive.

The City of Golden has implemented a bear proof system handing out bear resistant bins to all residents. Revelstoke Bear Aware will follow developments in Golden and report to the City on the success of their new program as a City wide bear resistant garbage solution is ideal in keeping our community safe and bears wild.

### **Conservation Officers for Revelstoke**

The City of Revelstoke has requested that the Province of British Columbia bring Conservation Officers to this community. Revelstoke Bear Aware supports this request, but recognizes that this would be only a partial solution to reducing bear-human

conflicts. Our residents and the City must do all they can to ensure bears are not attracted to our community.

## *6. Recommendations for 2017*

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Revelstoke Bear Aware Society will continue to operate its program to educate area residents and encourage appropriate behaviours to keep our community safe and our bears wild. The following specific recommendations are made for 2017.

1. Follow the development of the City's wildlife attractant bylaw and have it in place in spring of 2017. Assist with this process as appropriate.
2. Develop our 2017 educational program. The 2017 program will offer specific education to support community awareness of, and skills to comply with, the new wildlife attractant bylaw.
  - a. List unmanaged fruit trees to allow for better management under the bylaw.
  - b. Urge the City and other land administrators to remove unmanaged fruit trees from their properties.
3. Advocate for a city-wide bear resistant solid waste collection system.
  - a. Urge the City to implement a centralized bear resistant bin system in all mobile home parks and new developments in 2017.
4. Revelstoke Bear Aware will develop an agreement with Local Food Initiative to offer the Gleaning Program.
5. Revelstoke Bear Aware Society will update its bylaws.
6. Revelstoke Bear Aware Society will complete the provincially-mandated transition to the new Societies Act.

## 7. Appendix 1

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### **Press Release:**

Week of August 15, 2016

The bears of Revelstoke are coming into town earlier this year. Revelstoke Bear Aware has noticed that there has been a substantial increase in calls coming into both the RAPP line and to the Revelstoke Bear Aware Society in comparison to the last few years. The higher than usual bear activity is being reported across the city, from Columbia Park to Arrow Heights and everywhere in between.

The reason for this early migration into town is a range of factors. The weather was unusually warm this spring which led to a great initial berry crop. However, the tempting smells of garbage in this warmer weather over the last week or two and fruit trees ripening early as well provide an easily accessible feast to bears. Black bears require 20,000 calories a day in preparation for hibernation in the winter months. That would be the same as eating 35 loaded hamburgers a day. Bird and chicken seed is also very high in calories, with 1 kg providing 8,000 calories. Sows also need to ensure they are eating enough to support any cubs that may be born over the winter. If a sow does not consume enough, then the cub is not born as they both would not be able to survive the winter.

Reports of attractants such as garbage and fruit trees are top of the list. In order to keep our bears wild and our community safe, Bear Aware is asking the community to pull together to keep garbage locked in a secure location such as a garage or indoors and fruit trees picked. This reduces the possibility of bears becoming food conditioned and less afraid of humans which can become a risk. If anyone does need help gleaning their fruit trees Bear Aware has partnered with the Revelstoke Local Food Initiative to run their gleaning program again this year, which provides a free gleaning service through the use of volunteers and donating any left-over fruit to the Community Connections Food Bank.

Let's all work together to keep the bears wild and our community safe!

## 8. Appendix 2

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### Final Report of the Johnson Heights Pilot Project:



Revelstoke Bear Aware Society

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**April 19, 2016**

**Mike Badry**

Ministry of Environment  
PO Box 9376 Stn Prov Govt  
Victoria BC  
V8W9M1

Dear Mike,

### **Re: Bear Resistant Polycart Pilot Project - Revelstoke, BC**

In October 2008 Revelstoke Bear Aware and the City of Revelstoke began trialing a semi-automated bear-resistant garbage collection system in a suburb of Revelstoke, BC called Johnson Heights. The purpose of the trial was a) to determine the effectiveness of bear resistant bins on reduction of human-bear conflict, b) to attain residents' opinions about the use of bear-proof bins, and c) to determine whether it was suitable to use a lifter arm to collect bins throughout winter months with heavy snow.

The project was paid for in part by a grant from Provincial Bear Smart funds (purchase of bins), in part by the City of Revelstoke (purchase of lifter arm for garbage truck), and in part by the Revelstoke Bear Aware Society (information and education).

The area selected for the pilot project was chosen for several reasons; it is a bare land strata with mostly mobile homes where most people don't have secure storage for garbage; the area had a history of human-bear conflict; the area is adjacent to Mount Revelstoke National Park and is separated from the rest of Revelstoke by a belt of undeveloped and forested lands so is relatively geographically separate. Because of these factors any changes to the amount of human-bear conflict due to the deployment

of the bear resistant garbage system were readily apparent.

The bins were deployed in October 2008. There was an almost immediate reduction in bear conflict in the area. I say almost, because it took the bears a couple of weeks to learn that they could not breach the new bins. However, after an initial period of about 2 weeks, numbers of bears reported in the area dropped dramatically. Figure 1 shows Johnson Heights bear reports in the two years prior and the five years after the deployment of bear resistant bins. Reports of bear sightings (black symbols), garbage related conflict (green), and destroyed bears (red) dropped markedly after the bins were introduced.



**Figure 1.** Bear reports in Johnson heights 2006-2008 (left) and 2009-2014 (right). Green bear symbols = garbage bear conflict, black = bear sighting, purple = fruit trees, and red = destroyed bear. Green shaded area in the left image denotes a statistically significant area effect for garbage x area.

Before the bins were deployed, Bear Aware spent time on educating the residents about the importance of their new bins and how to use them. Because of this we had good engagement with the residents and most people used the bins correctly. We did have some instances of residents putting out extra garbage in bags beside the bear resistant bins, and this accounted for some ongoing bear conflict in the area.

We also conducted surveys on residents' opinions of the use and usefulness of the bins. In the majority of cases, residents were happy with using the bins, even though they were relatively small bins (32 gallon). Ninety-three percent of residents felt that the bins were effective at preventing bears getting into their garbage and thought that the bins

should be used throughout the city.

The bins we chose were BearSaver automatic locking bins, used in conjunction with a semi-automated lifter arm on the garbage truck. The bins proved very durable when attacked by bears. Over the 5 years they have been in service there have been two known breaches, in both cases the breaches were relatively small with very little or no garbage extracted through the hole. However, the locking mechanism has proven less suitable. Some of the locking mechanisms failed in the first season, and after 3 years approximately 50% had failed, allowing bears to access garbage. Part of the problem is that Revelstoke experiences many freeze-thaw cycles throughout the winter and water getting into the mechanism then freezing causes damage and prevents opening of the cart to empty.

Using a semi-automated lifter arm to empty the bins into a collection truck caused some problems. The bins were initially too top heavy to stay standing when the arm returned them to the ground and had to be retrofitted with a weight to stabilize them. It was also costly in time to have the driver dismount the truck, maneuver the bin into the arm, and unlatch the lock.

The pilot project was effective in providing information to Bear Aware regarding the effectiveness of bear resistant bins, and allowing for good resident engagement. It also provided valuable information to the City with regards to the durability of the latching mechanism prior to potential citywide rollout. At the conclusion of the pilot project the City of Revelstoke chose not to roll the system out to all residents, primarily due to the failure of the locking mechanism.

At the beginning of 2016 the BearSaver bins were removed and a bear resistant centralized bin was installed in the area. The bin is currently being emptied twice a week and there have been few reported issues so far. We will be collecting information on the usability and costs of this bin with a view to potentially rolling this type of centralized bin out in other mobile home parks in Revelstoke.

Yours Sincerely,

**Loni Parker**

President  
Revelstoke Bear Aware Society.