



## Proposal for a Bear Hazard Assessment for the City of West Kelowna

### Introduction

Every year, hundreds of bears are destroyed in the Province of BC as a result of conflicts with people. Many of these conflicts can be prevented if the root causes are identified and mitigation measures are implemented to reduce the risk to people and bears. The purpose of a Bear Hazard Assessment (BHA) is to “review the history and pattern of bear conflicts in the community and identify bear habitat, human-use areas (school yards, playgrounds, etc.) and non-natural attractants such as accessible garbage, fruit trees, etc.” Completing a BHA is one of the requirements for communities seeking [Provincial Bear Smart Community](#) status. However, even if a community is not pursuing this certification, identifying factors that can lead to potential human-bear conflicts is an important step to informing management decisions and proactive efforts to prevent human-bear conflicts.

WildSafeBC is the provincial leader in preventing conflict with wildlife through collaboration, education and community solutions. It has evolved out of the highly successful Bear Aware program and is owned and delivered by the British Columbia Conservation Foundation. We propose to provide the City of West Kelowna with a BHA in order to assist and inform work being done to reduce human-bear conflicts in the City. This BHA will also be suitable for submission to the Province as meeting one of the Bear Smart Community criteria, should the City decide to pursue Bear Smart Community status.

### Background

In 2021, West Kelowna saw the highest number of bear conflict reports in the area out of the last six years for which data was reviewed. The 180% increase in black bear reports made to the Conservation Officer Service this year is likely partly due to drought conditions reducing natural food availability and nearby wildfires resulting increased bear movements. With the uncertainty in future environmental conditions due to climate change, alongside a fast-growing and expanding community, there will likely continue to be increases and unusual patterns in human-bear conflicts locally. As the city grows, it is important that wildlife conflict mitigation measures be considered in order to help keep residents, the community, and the wildlife safe. A BHA is an important tool towards co-existence with bears.

Westbank First Nation has recently completed a BHA on their lands (IR9 and IR10) adjacent to the City of West Kelowna. One of the recommendations resulting from this was that the City of West Kelowna also conduct a BHA in order to achieve a more complete picture of the causes and risk factors of human-bear conflicts in area. Due to the interconnectedness of the lands between these two communities, the factors leading to human-bear conflicts are also related. The addition of a BHA by the City of West Kelowna would allow for both reports to be considered alongside each other, providing for more informed decision making and initiatives on co-existing with bears in the area, as well as further opportunities for collaboration between the two communities.

## Scope

The scope of the BHA will include an evaluation of the land within the City of West Kelowna (fig. 1), with a detailed focus on areas or neighbourhoods with high bear activity and/or other risk factors, such as locations around bear travel corridors, schools and parks.

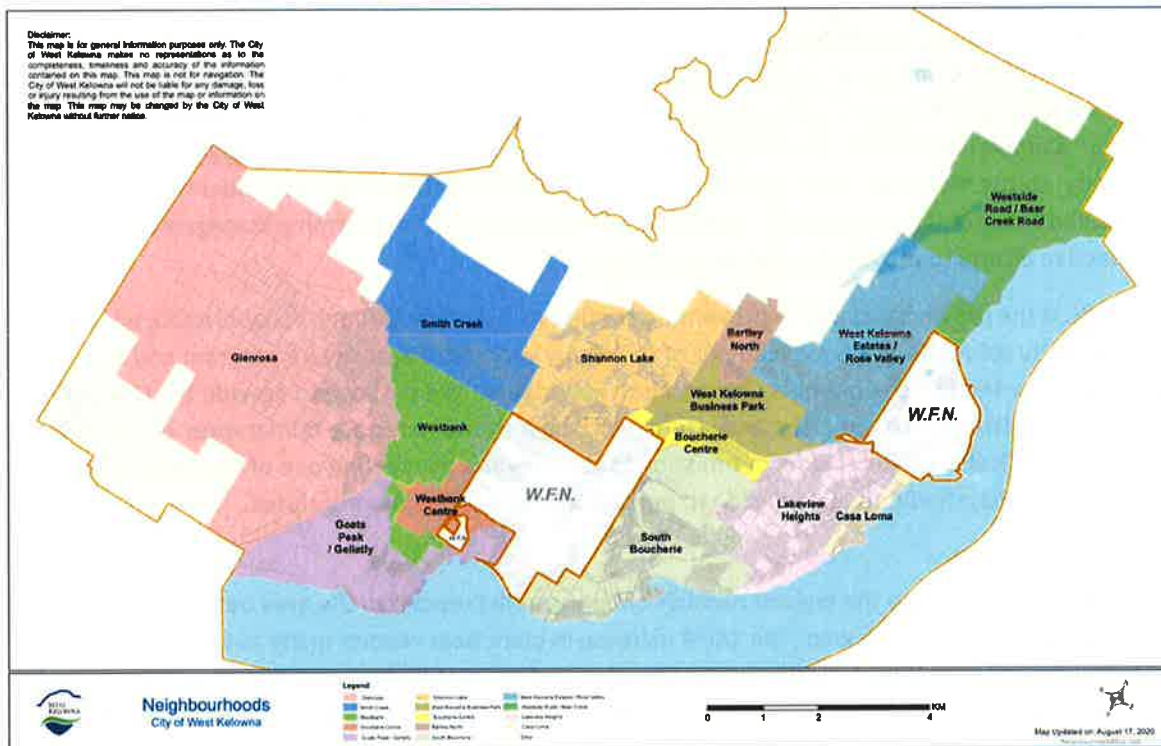


Figure 1. West Kelowna and BHA scope.

## Outcomes

The BHA will identify and map the key factors that influence existing or potential human-bear conflict in West Kelowna including:

- history of bear reports and patterns;
- non-natural attractants such as garbage or fruit trees;
- bear travel corridors and high quality habitat.

This information will be used to develop risk ratings which can be used to prioritize further management activities. Risk area ratings represent a potential for a negative human-bear encounter and are based on the factors listed above and how they potentially overlap or lie adjacent to human-use areas.



## Methods

### Data Collection

Non-natural attractants will be mapped through a survey completed by WildSafeBC staff. A GPS unit will be used to mark the location of 'chronic' attractants (those that are relatively permanent) and photos will be taken at points of interest. Interviews and/or surveys will be conducted with pertinent land managers (such as managers of mobile home parks and orchards/vineyards).

The history of bear reports will be summarized through interviews and/or surveys with local experts (Conservation Officers, Bylaw Officers, wildlife specialists) and analysis of the bear reports to the Conservation Officer Service through WildSafeBC's Wildlife Alert Reporting Program (WildSafeBC, 2019).

Bear travel corridors will be mapped by analyzing aerial imagery (Google Earth, 2019) and through communications with local experts. Bears prefer to travel along corridors where they are less exposed such as drainages, creeks, and riparian corridors.

Current attractant management strategies will be documented and may include but not be limited to:

- current bylaws and enforcement strategies
- fruit gleaning and attractant management strategies
- solid waste collection and management
- current human-wildlife conflict reduction education activities

### Community Engagement

A public survey developed by a social scientist expert will be conducted on the topic of on bear-human interactions, and open to all West Kelowna residents. The survey will be available online, and with assistance from city staff to set-up pick-up and drop-off locations, paper versions will also be made available. The survey allows for WildSafeBC to engage with interested community members and learn about concerns and attitudes towards bears in the community; as well as, provides an opportunity for residents to identify areas of bear activity.

### Report Draft

The results of the community engagement process will be used in conjunction with the collected physical data to provide an overall picture of bear movement patterns, history of conflict and potential for human-bear conflict. This will be used to inform a risk assessment by area and will be communicated using a combination of maps and descriptions. The report will include mapping and analysis of the data collected – history of bear reports, non-natural attractants, bear travel corridors, and risk areas.

### Further Steps

Once the BHA is completed and approved by the Province (if West Kelowna is seeking Bear Smart status), the next step would be to complete a Bear Conflict Management Plan (BCMP). The BCMP is informed by the BHA and is developed in collaboration with city staff. The BCMP outlines what specific actions can take place to address some of the hazards identified in the risk area mapping with proposed timelines. The plan should be achievable and consider what barriers may be in place in order to be



successful. The overarching goal of the plan is to reduce conflicts and increase community safety. For the plan to be implemented successfully, it should align with the community’s long term vision.

### Estimated Cost of BHA

Data collection, field work, expert & land manager communications, public survey, mapping and report writing.....\$14,500\*

\*In order to keep to this cost estimate, we ask for collaboration and in-kind support from city staff, which may include printing, periodic field work assistance, technical mapping support, and collaboration with communications team to let residents know about the survey opportunity. Note the current WildSafeBC Community Coordinator, who would also work on the BHA, already has a working relationship with many city staff.

### Timeline

The project can commence once commitment is received from the City of West Kelowna. Much of the mapping will need to take place when snow is not present and fruit trees can be identified, making spring or summer 2022 the ideal time to begin. Report writing can be completed once the necessary data is collected and sufficient expert interviews and community engagement performed. A spring/summer 2022 start, would allow for completion by the end of the fiscal year (March 2023).