Working with communities to improve the quality of life of British Columbia's free-roaming dogs and their people

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EXECUTIVE SUMMARY

Objectives

The primary objective of this project is determination of best practice guidelines for the British Columbia Society for Prevention of Cruelty to Animals (BC SPCA) in partnering with BC First Nations communities in addressing self-identified domestic dog welfare and overpopulation issues. The practices recommended will be used by the organisation to develop a resource toolkit to be used by BC SPCA staff and volunteers in developing these partnerships.

In order to determine best practices, the following sub-questions are explored in the literature review and participant interviews:

1. *What factors are contributing to the domestic dog crisis in some First Nations communities in BC?*
2. *Which strategies and tools are effective at increasing the quality of life and controlling the population of dogs in First Nations communities that identify as having these issues?*

It is anticipated that the recommendations emerging from exploration of these questions will lead to effective, respectful partnerships between the BC SPCA and communities in the province, and more sustainable dog welfare management activities.

Methodology

This project utilised primary data from eighteen participants. Semi-structured interviews with open-ended questions about free-roaming dogs, dog health and population control, and partnership development led to the emergence of major themes. This data was analysed alongside in-depth literature review that covered topics about free-roaming dogs worldwide, and existing research on domestic dog population and health management methods.

Key Findings

Literature Review

The findings from the literature revealed several gaps. Of note, there has been little research to date on free-roaming dogs in Canada, and what research is available has been primarily qualitative. However, research on free-roaming dogs in other parts of the world helped to establish some context for the roles that different stakeholders might play, factors that might contribute to or exacerbate issues, and the potential of particular methods in improving dog welfare and stabilising free-roaming populations.

Primary Research

Participants tended to agree with the available literature about the most humane and effective ways to improve dog overpopulation and welfare issues. Generally speaking, participants tended to favour dog sterilisation programming in combination with education, community development, or bylaw development. Key themes about partnerships that emerged from the interview data are the importance of developing good relationships between bands and the BC SPCA, moving toward community autonomy, investing in staff, and utilising available support from local rescues and RCMP detachments.

Discussion

The project's discussion examines to what extent the research questions have been addressed and highlights some considerations that emerged from analysis of the primary data. These include innovations in welfare and population control programming (namely the potential for contraceptive implants and the rise of community development-based initiatives), exploration of dog welfare and overpopulation issues from within a complex adaptive system, and ethical questions that became apparent throughout the process.

Recommendations

The findings and discussion led to five recommendations. Short-term suggestions include presentation of the findings to select stakeholders and developing the Toolkit for Building Humane Community Partnerships. In the longer term, it is recommended that staff and volunteers who may be involved in partnership activities be trained on relevant issues, context, and best practices. It is also suggested that the BC SPCA hire an Indigenous Liaison as part of its outreach team. Finally, an option for consideration is presented: a feasibility study for the use of contraceptive implants as part of its efforts in for helping control dog populations in First Nations communities.

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1. INTRODUCTION

There may be up to one million free-roaming domestic dogs on Indigenous lands across Canada (Gerson, 2013). There are currently no statistics regarding the number of free-roaming dogs in BC. According to the project's client, the British Columbia Society for the Prevention of Cruelty to Animals (BC SPCA), many First Nations communities in British Columbia (BC) are expressing that they have a dog health or overpopulation crisis (A. Morris, personal communication, August 13, 2015). When there are too many free-roaming dogs in a community, the dogs become neglected and a host of issues may follow: public health risks, including bite injuries or fatalities (Raghavan, 2008), animal and human diseases (Slater, 2001), and other animal welfare concerns. Dangerous packs of dogs have also been known to affect communities adjacent to reserves (Degraff, 2013; Judd, 2013). Experts in the field of dog population management and community development assert that traditional approaches to controlling free-roaming dog populations, such as culling or removal and adoption of a community's dogs, fail to address root causes by perpetuating a cycle of removal and replacement (International Fund for Animal Welfare [IFAW], n.d.b).

BC SPCA's (2013) current strategic plan dictates intent to develop practices that address animal cruelty and neglect at their root causes, and to support the development of humane communities across BC. According to the BC SPCA (2013), a humane community is one where resident animals are provided the Five Freedoms, as adapted from Farm Animal Welfare Council [FAWC] (1979): freedom from hunger, thirst, pain, injury, disease, distress, discomfort, and freedom to express normal behaviours.

However, the BC SPCA does not have a standardised practice for approaching dog overpopulation and welfare issues in First Nations communities. To date, little formal research has been conducted regarding the extent of the problems, nor best practices in approaching them. This project was designed to provide the BC SPCA with tools to develop partnerships with First Nations to address dog overpopulation, welfare, or health issues. Developing an effective set of guidelines in partnership with First Nations will improve the lives of the free-roaming dogs and people who care for them.

1.1 Project Client

Since 1896 the BC SPCA (2017c) has endeavored to protect and improve the lives of domestic, farmed, and wild animals in British Columbia, and is responsible for enforcing animal welfare in the province. It investigates allegations of animal cruelty and neglect across BC, including within First Nations reserves, through authority granted by provincial and federal legislation (BC SPCA, 2017e). Over the past century the BC SPCA (2017c) has conducted countless animal health and welfare advocacy campaigns, contributed to the development of more effective legislation against animal cruelty, and worked to educate the public on animal issues. The organisation serves out of 36 branches across the province, and facilitates the adoption of about 16,000 animals annually (2017e).

Lack of research, limited funding, and the desire to respect ethical boundaries surrounding Indigenous rights and culture have led to a situation in which staff and volunteers may be unsure of how to (or whether to) approach partnership development. As issues related to dog overpopulation have come to light, and more First Nations communities have sought the BC

SPCA's collaboration, it has become increasingly relevant for the Society to formalise a well-informed approach (A. Morris, personal communication, August 13, 2015).

Creating Humane Communities through a Cultural Shift to Proactive, Preventive Animal Welfare is currently one of the organisation's top priorities (BC SPCA, 2013). While the strategic plan does not make specific mention of Indigenous Peoples, there are about 200 Indigenous communities in BC alone (Province of British Columbia, n.d.). Within its strategic plan the BC SPCA (2013) recognises that as long as relevant knowledge and resources are in place, communities determine the welfare of their own animals. It follows that domestic dog overpopulation and any problems associated with free-roaming dogs must be addressed through collaboration between animal welfare organisations and communities. Beyond receipt of the project's explicit deliverables, the researcher and BC SPCA hope that this project will help raise the profile of dog overpopulation issues, which may help to acquire and allocate funding for further work.

The project's primary BC SPCA contacts were Amy Morris, Manager of Public Policy and Outreach, Dr. Sara Dubois, Chief Scientific Officer, and Graeme Wright, Regional Manager of Vancouver Island, Salt Spring Island and Powell River. These individuals were involved in the project's initial development and were consulted throughout data collection and the writing of the report.

1.2 Project Objectives

The project aims to answer the following primary research question:

> *What are best practice guidelines for partnering with British Columbian First Nations communities to address self-identified issues related to domestic dog health or overpopulation?*

Sub-questions include:

1. *What factors are contributing to the domestic dog crisis in some First Nations communities in BC?*
2. *Which strategies and tools are effective at increasing the quality of life and controlling the population of dogs in First Nations communities that identify as having these issues?*

The purpose of this qualitative project is to inform an accessible information resource and develop a best practice approach for the BC SPCA in partnering with a variety of different First Nations communities. The sub-questions coordinate to resolve the primary research question, and each sub-question will be explored both through both the literature review and primary data analysis from interviews with diverse stakeholders.

As part of establishing best practices and identifying opportunities for interview participants, an environmental scan of current partnership initiatives between BC animal welfare groups and First Nations will be discussed.

1.3 Organisation of Report

The Background section presents a list of useful terms and definitions, issues associated with dog overpopulation, and the BC SPCA's role in addressing dog welfare and overpopulation in communities. An overview of existing partnership initiatives between BC First Nations and animal welfare groups is briefly introduced. The literature review explores the scientific literature

available that is relevant to the study of free-roaming dogs, and summarises a variety of dog health and population control strategies.

The next two sections describe the conceptual framework, methodology, and methods used in the project's design and treatment of data, and the following section presents findings from primary data analysis. Finally, a discussion takes place of the findings and recommendations for the development of the Toolkit for use by BC SPCA staff in partnering with First Nations.

2. BACKGROUND

This section provides an overview of concepts foundational to understanding the context and importance of this project. Different perspectives on free-roaming domestic dogs are explored, and reasons why these dogs may or may not be considered problematic. The concept of dog overpopulation is introduced, followed by a summary of key issues and the BC SPCA's current approaches.

2.1 Terminology and Definitions

This section serves as a glossary for terminology used in this report. It includes a detailed discussion about the different types of free-roaming dogs and the variety of terms used to describe them.

Animal Health: Good clinical condition and freedom from illness and injury. Veterinary examination, vaccination, sterilisation, and deworming are examples of animal healthcare. Animal health is a component of animal welfare.

Animal Rights: The concept that non-human animals are entitled to certain fundamental protections, for example, from being eaten, abused, or owned by humans (People for the Ethical Treatment of Animals [PETA], 2017b).

Animal Welfare: The consideration that humans can justify the use of animals, provided a minimal level of provision is in place to promote the animal's health and well-being. The BC SPCA (2017d) includes the Five Freedoms in promoting good animal welfare into its Charter: freedom from hunger, thirst, pain, injury, disease, distress, discomfort, and freedom to express normal behaviours (FAWC, 1979). A community in which animals are afforded these freedoms is considered a humane community (BC SCPA, 2013).

Culling: The attempt to control disease spread or population growth through selective or total slaughter/euthanasia of an animal population.

First Nations: Peoples of Indigenous descent in Canada who are ethnically distinct from Inuit and Métis Peoples. There are 198 First Nations in BC (Indigenous and Northern Affairs Canada, 2010).

Free-roaming Dogs: A free-roaming (or free-ranging) dog is physically unrestricted (Boitani, Ciucci, & Ortolani, 2007; De Lavigne, 2015; Slater, 2001). Dogs are free-roaming when they are not behind a fence, chained, nor inside a home. There are different types of free-roaming dogs, but how they are labeled may influence how one chooses to interact with them.

Some researchers find it useful to classify free-roaming dogs according to their level of interaction with and dependence on humans, focusing on whether the dog is owned, stray, feral, or somewhere in between (Boitani & Ciucci, 1995; Boitani, Ciucci, & Ortolani, 2007, Ruiz-Izaguirre, 2013; Slater, 2001).

Many free-roaming dogs have at least one human guardian (Slater, 2001). These "community dogs" maintain dependency or social bond with humans, but not one specific person (Kwok, von Keyserlingk, Sprea, & Molento, 2016). Feral dogs, on the other hand, survive without food or shelter supplied intentionally by humans and avoid human interaction (Kwok et al., 2016; Slater, 2001). These categories are thought to be fluid: an owned semi-restricted dog may become a

community dog, a community dog may become feral, and so on, depending on their circumstances (Boitani, Ciucci, & Ortolani, 2007).

One may also differentiate between “domestic”, “feral”, and “wild” dogs. A domesticated dog is understood to be tamed or dependent on humans. Feral dogs exist somewhere in between the extremes of domestic and wild dogs, but all three types are the same species, canis lupus familiaris, and may interbreed. Experts on free-roaming dogs have established that “wild” dogs are canines of a species other than canis lupus familiaris (De Lavigne, 2015). The Australian dingo is an example of a wild dog species.

Although Kwok et al. (2016) equate strays and community dogs, Ruiz-Izaguirre (2013) argues that the word “stray” carries a negative connotation implying that these dogs are problematic. Rather, they often serve important social purposes in communities and their presence is welcomed or encouraged. She argues that the relationship between free-roaming dogs and humans is not as simple as many outsiders believe, and that a dog who an outsider may view as “stray” will likely interact with one or several households on a regular basis, and is thus part of the community. She concludes that calling such dogs “village dogs” instead of strays influences how humans intervene. See Figure 1 for a summary of various terms that are used to describe free-roaming dogs.

Because academics have chosen to use so many different terms when discussing free-roaming dogs, it is difficult to fully conceptualise certain issues, such as a dog’s legal rights (Nowicki, 2014). In Canada, dogs and other animals can be legally owned by humans as property (Beaumont, 2015). This further distinguishes owned dogs from wild, feral, or stray dogs, who are regulated differently under Canadian law (Shariff, 2015).

This report utilises the term “free-roaming” because it most effectively captures the diversity of different types of dogs, and because of its neutral connotation—“free-roaming” does not place judgement on dogs or humans in the same way that “stray” or “feral” might.

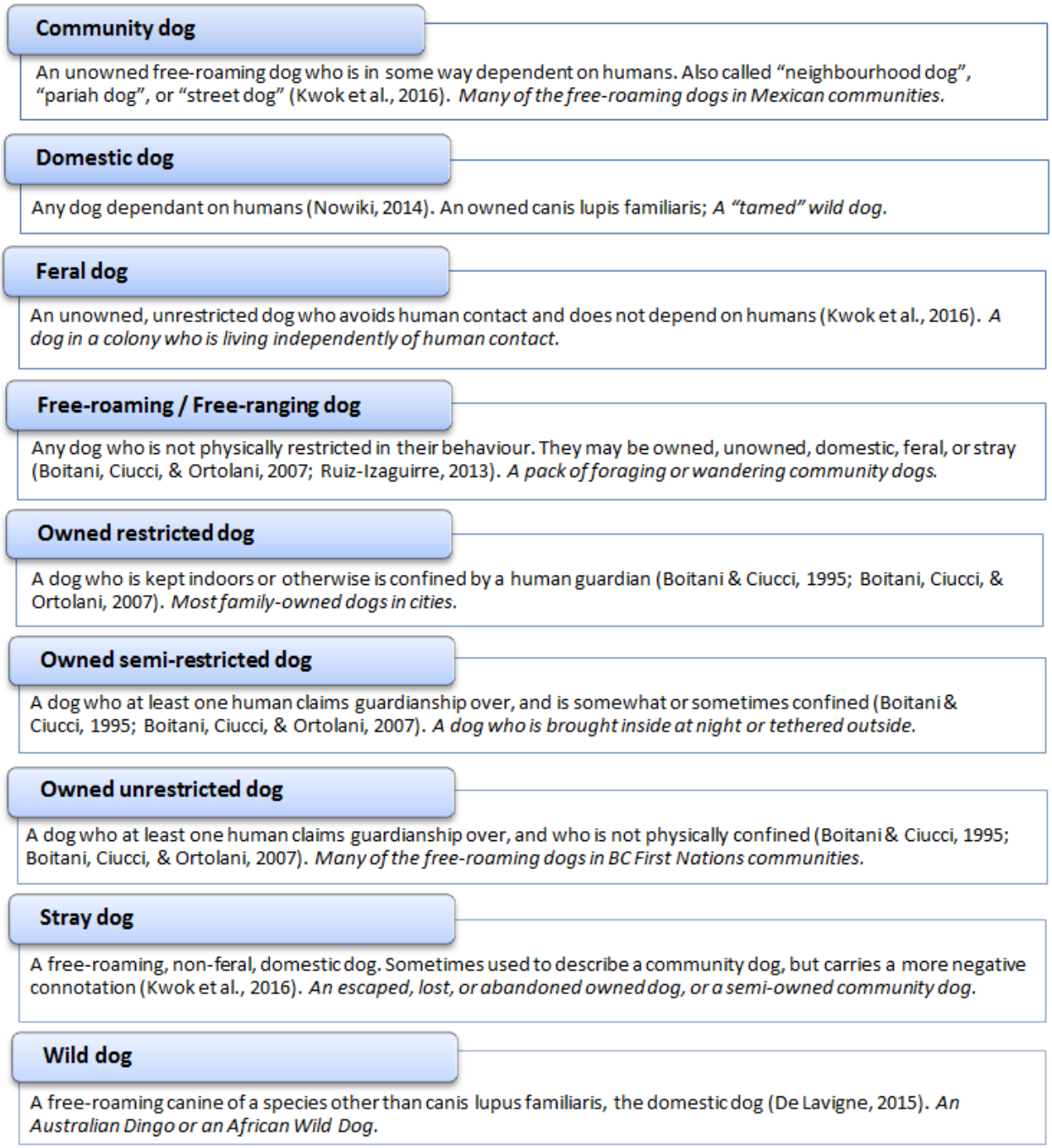

Figure 1. Free-roaming dog classifications.

Humane Education: Education about respecting living things (Unti & DeRosa, 2003). It may include lessons on animal care or protection, and may be integrated into the primary, secondary, or post-secondary education system.

Indigenous Peoples of Canada: Descendants of the first inhabitants of Canada. These include First Nations, Inuit, and Métis Peoples. "Indigenous" is the chosen terminology in this report (over "Aboriginal") as it is growing in popularity as the preferred term by the aforementioned groups (CBC News, 2016).

Rehoming: The transfer of guardianship of a pet (including owned, unrestricted dogs) from a guardian, often by relinquishment to a shelter or rescue group, for the purpose of finding the dog a new home. Guardians also rehome directly to new guardians. Rehoming differs from "adoption", which refers to the transfer of animals to new homes, regardless of where they came from—they may have been rescued from a puppy mill, relinquished by guardians, or picked up as strays, for example.

Spay/neuter Clinic: A common type of capture-neuter-return program in BC. During these projects a veterinary team briefly enters a community, aiming to surgically sterilise a large proportion of its free-roaming dogs, typically in partnership with community members. The team generally returns multiple times to spay/neuter more animals. Some organisations call their spay/neuter clinics Animal Health Care Projects (Canadian Animal Assistance Team [CAAT], 2007) or Outreach Clinics (Victoria Humane Society [VHS], 2016).

Zoonosis: A disease that can be transmitted from animals to humans. Examples of zoonoses from dogs include rabies (viral), giardia (parasitic), salmonellosis (bacterial), hookworm (fungal), and Lyme disease (vector-borne) (Macpherson, 2012). A Canadian study found that people living in rural Indigenous communities are more likely to be exposed to echinococcus granulosus (tapeworm) due to their interactions with dogs who hunt for food (Himsworth et al., 2010).

2.2 Dog Overpopulation

Populations of free-roaming domestic dogs may or may not be problematic for a given community; there may be a high density of healthy free-roaming dogs (Ruiz-Izaguirre, 2013). Such a community may not express any interest in reducing the dog population. Conversely, a community with only a few free-roaming dogs may indicate serious dog-related issues or be struggling with maintaining dog welfare. Overpopulation ("too many dogs") does not refer to a specific number or density of dogs living in a community. For the purposes of this project, free-roaming dog overpopulation exists simply when community members express that there are too many dogs.

Free-roaming dog overpopulation can contribute to an array of public health and ecological impacts, community disturbances, and ethical issues. One serious concern may be dog attacks, particularly for Indigenous communities. Almost half of dog-bite fatalities reported in the media in the last two decades happened on Indigenous reserves, although only about 1.3% of Canadians live on-reserve (Raghavan, 2008). The study concluded that rural communities are more at risk of dog-bite fatalities, although media attention may be disproportionate for incidents occurring on-reserve; the number of actual fatalities may be higher or lower.

One American study found that hospitalisations related to dog-bite injuries are twice as likely for Alaskan Native children relative to children in the general US population (about 3 per 100,000) (Bjork et al., 2013). Free-roaming dogs also contribute to traffic accidents. One British study estimated that dogs involved in car accidents cost an estimated £14.6 million annually to casualties (Royal SPCA, 2010). Zoonoses may also be a concern (Slater, 2001). Almost all human rabies fatalities reported worldwide were caused by transmission from domestic dogs (Knobel et al., 2005), although in Canada human rabies incidence is rare due to successful vaccination programming (Tataryn & Buck, 2016). Free-roaming dogs can also cause sleep deprivation by barking and fighting at night (Constable, Brown, Dixon, & Dixon, 2008).

Free-roaming dogs may prey on other animals, transmit disease to wildlife, or compete with other carnivores for food. The full effects of free-roaming dog populations on biodiversity and conservation are not easily determinable due to the ubiquity of dogs: there are an estimated 700 million dogs worldwide (Hughes & Macdonald, 2013). Packs can prey on livestock, causing significant issues for farmers (Hughes & Macdonald, 2013; International Companion Animal Management Coalition [ICAM], 2008), and are considered a nuisance for defecating in outdoor spaces, spilling garbage, barking at night, stealing and begging for food, and mating (Ruiz-Izaguirre, 2013).

Free-roaming dog health and overpopulation can also have a powerful psychological impact. Canadian researchers recently examined the effects of exposure to abuse, neglect, suffering, or the killing/culling of free-roaming dogs (Arluke & Atema, 2015). The study found that normalised animal welfare issues can lead to feelings of insecurity, anger, sadness, traumatization, desensitisation, social conflict, and other damaging effects on community and individual quality of life.

The presence of free-roaming dogs imposes many ethical questions for animal advocates, members of communities with free-roaming domestic dogs, and the public at large. One might wonder, for example, whether a dog should have recognised rights beyond freedom from abuse and neglect, such as the right to roam outdoors. Answers to these questions contribute to opinions on whether and how humans should use and control domestic dogs.

Animal rights organisations, such as PETA (2017a), have argued for decades that it is unethical to purposefully domesticate, behaviourally restrict, or claim ownership over any animal. As an animal welfare organisation, the BC SPCA, on the other hand, does not take particular issue with pet ownership, but focuses instead on making the lives of companion animals better, in part, through reducing pet overpopulation (2015d), encouraging progressive municipal and community animal responsibility and control bylaws throughout the province (BC SPCA, 2017b), and campaigning against specific issues such as dog tethering - leaving a dog alone in a yard, or on a rope or chain, for long periods of time (BC SPCA, 1982).

Although some Canadians believe that dogs should hold certain legal rights, such rights are currently set at a lower legal priority than the rights of the dog's owner to use or enjoy his or her property. Canadians can legally restrict and confine, own, trade, breed, profit from, and euthanise dogs—as long as doing so is not deliberately cruel (Criminal Code, 1985). Those who take part in or benefit from any of these activities, but also have concerns about the control of dogs to human advantage, may find themselves facing a moral dilemma. Has our species betrayed our favourite animal companions? The psychology behind the rationalisation of animal exploitation is beyond the scope of this project, but it is important to keep in mind contributing biases and ingrained cultural messages about the value and subjective experience of animals.

Of particular ethical concern to this project is the cultural significance of dogs to First Nations Peoples, and more broadly, Indigenous Peoples of Canada. Considering free-roaming dogs from a culturally relevant context is crucial for usefulness of the project, as one of the project's key deliverables, recommendations for the Toolkit for Building Humane Community Partnerships (working title, hereafter referred to as the "Toolkit"), will be designed to be useful to both BC SPCA staff and to communities.

To illustrate the importance of a culturally relevant mindset, one might consider that free-roaming dogs are rarely seen in BC's cities. Almost all of BC's municipalities prohibit free-roaming dogs, who are collected and confined by animal control bylaw officers as soon as possible, and owners may be fined (BC SPCA, 2015c). The sight of multiple free-roaming dogs living outside in a community is a cultural norm to which most city-dwellers are unaccustomed. Thus, a city-dweller may take issue with a First Nations community's free-roaming dogs simply because it is so contrary to what they are used to.

Free-roaming dogs have been a part of First Nations way of life and culture for millennia, but the First Nations' perspectives on free-roaming dogs is sparsely represented in Canada's academic research (Schurer et al., 2015). As a gross over-generalisation, Indigenous Peoples in Canada have traditionally held beliefs in animal personhood, or that animals are individuals, not resources to be used by humans without consideration for their rights and experiences (Brighton, 2011).

2.3 BC SPCA and Dog Overpopulation

The client's current strategy for addressing dog overpopulation centers on surgical sterilisation (spay-neuter) efforts, humane education, partnership building, and ongoing research (BC SPCA, 2015a). The organisation offers low- and no-cost services in its hospitals, conducts sterilisation advocacy campaigns, promotes humane education, and provides bylaw development guidance (2017c). Humane societies and animal welfare groups in Canada may choose to target issues differently, but the BC SPCA, along with its partner members of the Canadian Federation of Humane Societies (n.d.), advocates for companion animal sterilisation efforts and animal control bylaw development and implementation.

Recent spay-neuter projects managed by the BC SPCA have targeted cat populations, but the organisation also awards Community Animal Spay/Neuter Grants annually to other groups wanting to address companion animal overpopulation in their area. The BC SPCA seeks to partner with veterinarians, schools, and local governments to help develop programs and bylaws that better serve communities. Under the Indian Act (1985), each First Nation's band council can develop its own bylaws regulating animal control.

It was decided that the development of a research-informed Toolkit could be useful in respectful partnership-building with First Nations communities and communicating knowledge about effective dog population control methods. The client also wanted the Toolkit to incorporate how population management strategies might differ depending on a community's goals, bylaw status, rurality, and access to various resources. A section of the report's literature review examines the current state of knowledge on the effectiveness of population management strategies that have been utilised by the BC SPCA and others, both in Canada and abroad. These studies will inform the Toolkit on current best practice approaches. Primary data includes perspectives from First Nations and experts already working with communities, ensuring that affected parties are consulted and that the Toolkit will benefit communities in addition to helping the client achieve a goal.

2.4 Current Partnership Initiatives

Below is an overview of public information regarding current partnership initiatives between BC First Nations and vets or animal welfare groups. These partnerships have formed to work together to address the mutual goal of addressing pet overpopulation and improving animal

welfare through humane education, spay/neuter, rescue or rehoming, and other efforts as decided collectively.

Big Heart Rescue: Partners with remote BC First Nations communities that do not have access to a resident veterinarian (Big Heart Rescue, 2012).

Canadian Animal Assistance Team: Provides humane education and mobile vet services (including spay-neuter clinics) in partnership with low-income communities in BC and elsewhere (CAAT, 2007).

Cariboo Country Mobile Veterinary Services: Provides affordable veterinary services in rural communities in the Cariboo region of BC and helps conduct spay/neuter clinics in partnership with local First Nations (BC SPCA, 2015b).

Coastal Animal Rescue and Education (CARE) Network: Partners with multiple communities in the Tofino area (CARE Network, n.d.).

Crooked Leg Ranch Society: Partners with other organisations and First Nations communities in providing medical treatment, humane education, and rehoming of dogs in Central and Northern BC (Crooked Leg Ranch, n.d.).

Squamish Neighbourhood Animal Partnership and Protection Society (SNAPPS): A charitable animal rescue run by members of the Sḵwx̱wú7mesh Nation. Recipient of a 2015 BC SPCA Community Animal Spay Neuter Grant (S.N.A.P.P.S., n.d.).

The Lakes Animal Friendship Society: Partners with several communities in Northwestern BC and other animal welfare groups toward sustainable improvement in animal welfare (Lakes Animal Friendship Society, n.d.).

Victoria Humane Society: Partners with local First Nations in humane education and sustainable animal management programs (VHS, 2016).

Westbank First Nation: Recipient of 2016 and 2017 BC SPCA Community Animal Spay/Neuter Grant (BC SPCA, 2017a).

2.5 Summary

Free-roaming dogs exist through various classifications, some of which carry positive or negative connotations. These dogs may be perceived differently across cultures and areas in terms of rights and welfare, problematic behaviour, purpose, risk to a community, and historical importance. Although there are many potentially negative impacts related to free-roaming dogs, these issues, along with any perceived animal welfare issues, must be considered in cultural and historical context in order to fully conceptualise a best practices approach to change. The BC SPCA has expressed an intention to strengthen and build partnerships with communities across BC to assist in effective and culturally-appropriate ways with pet overpopulation issues, depending on the issues and the goals of the community.

3. LITERATURE REVIEW

For decades, free-roaming dogs have been a topic of interest to researchers from a range of disciplines, including animal law, conservation biology, social ecology, veterinary behaviour, animal sciences, and anthropology. In order to determine gaps and incorporate relevant secondary data, this review focuses on two topics: the study of free-roaming dogs, and dog welfare and population management.

The overview of recent research on free-roaming dogs is relevant because they are not always believed to be problematic. This section also details various stakeholders' roles, and is particularly relevant to one of the project's sub-questions: What factors are contributing to the domestic dog crisis in some First Nations communities in BC?

Next, the review addresses available literature on companion animal population control and welfare improvement in communities. These studies serve to contextualise efforts of animal welfare groups, and identify evidence-based best practices or disagreements about particular methods' relative success and drawbacks. This information is important in developing a Toolkit that may guide selection of methods as appropriate. This portion of the review also explores evidence for innovative population control technologies and strategies.

Literature was accessed through Google, Google Scholar, and the University of Victoria's Summon 2.0 library catalogue. Using systematic keyword combination searches, academic articles were collected, sorted, and analysed for relevant findings and themes. A total of 46 academic sources are included in this review, most of which have been published in peer-reviewed journals.

3.1 Free-roaming Dogs and the Role of Different Actors

Few peer-reviewed studies could be found that focused on free-roaming dogs in First Nations communities in Canada. Available peer-reviewed publications about free-roaming dog populations in Canada tended to be qualitative with a focus on research methods and the historical and present relationships between dogs and Indigenous Peoples. One descriptive study in the Northwest Territories used community questionnaires to find that needs are not being met by animal health services in remote communities (Brook et al., 2010). No analogous study in BC was found.

One best-practice determination is how to divide responsibility for dogs or animal welfare, and where animal welfare organisations like the BC SPCA fit in. There is significant disagreement in the literature on the best ways to study and address free-roaming dog health and overpopulation issues, and the roles of various stakeholders. There has been ample academic discussion on how various groups might contribute to solutions.

Role of Society

Fournier and Geller (2004) posited that dog overpopulation is a societal issue caused by complex patterns of both individual and collective human behaviours. They argued that control of existing animal surplus can be achieved by re-framing our concept of companion animals to view them as a resource, rather than a drain on resources. The researchers encouraged the utilisation of surplus dogs in therapeutic, service, and institutional settings, because such animals have been shown to improve the physical and psychological well-being of humans in a variety of ways. In order to prevent further overpopulation, the researchers suggested targeting

interventions at those whose behaviour changes will achieve the greatest impact on society overall, including the pet industry, the pet-supply industry, and animal welfare agencies.

Frank (2004) argued for societal intervention from an economic-ecological perspective. According to the research, addressing these issues is in society's interest because of the significant financial costs of ignoring them: An estimated $1 billion USD is spent yearly on unwanted animals in shelters (Rowan, 1992). Frank (2004) also listed dog bite injuries, the psychological impacts of euthanising millions of healthy animals, and the money donated to animal protection agencies as costs to human society. As of 2004, little scientific data had been collected regarding best practice or economically appropriate approaches for dealing with companion animal overpopulation (Frank, 2004). In more recent years economists and legal researchers have also argued for increased societal investment in policies addressing pet overpopulation (Coate & Knight, 2009; Coleman, Veleanu & Wolkov, 2011).

Role of the Nonprofit Sector

Kahn, Stuardo, and Rahman (2008) acknowledged that the nonprofit sector has been playing a key role in the attempt to control free-roaming dog populations. NGOs, charities, animal shelters, and other nonprofit sector groups have expended billions of dollars annually attempting to address pet overpopulation and other animal welfare issues, but Frank and Carlisle-Frank (2007) questioned whether they should do so without first determining answers to important questions about best practices. They argued that some pet overpopulation programming, such as spay-neuter initiatives, may substitute services that would otherwise be obtained elsewhere. Their case study, a low-cost surgical sterilisation program, did appear to raise overall community spay/neuter levels and adoptions, but was not found to decrease shelter intake. Additionally, this research was funded by the case study organisation, leaving the potential for bias.

Role of the Public Sector

Both in Canada and abroad, researchers who assessed legal interventions to improve dog welfare typically looked at legislation on animal control (Clarke & Fraser, 2013; Dalla Villa et al., 2010; Parry, 2013; Zanowski, 2012) or prevention of neglect and abuse (Beaumont, 2015; Kenny, 2011; Rugeley, 2014). None of these researchers were satisfied with current public policy in their jurisdictions. Recommendations included expansion of the rights of non-human animals (Beaumont, 2015), stricter penalties for abuse (Kenny, 2011; Rugeley, 2014), higher levels of enforcement and public education on bylaws (Clarke & Fraser, 2013), abolition of all breed-specific legislation (Clarke & Fraser, 2013; Parry, 2013), mandatory dog licensing to improve owner accountability (Parry, 2013), and "flexible" spay/neuter/breeding legislation (Zanowski, 2012, p. E32).

Dalla Villa et al. (2010) pointed out that affordability is an issue—in less developed countries, animal control programs and bylaws were less common and tended to be less humane. These areas were more likely to use baiting, shooting, and other inexpensive methods to attempt to control dog populations. Zanowski (2012) argued that centralised oversight and funding may be a key part in ensuring effectiveness of any legislation changes.

Role of the Scientific Community

Several researchers argued that the scientific community has an important role to play in addressing dog overpopulation. Slater (2001) asserted that practitioners of veterinary

epidemiology should help define and address problems associated with free-roaming dogs, including overpopulation. She argued that veterinary epidemiologists are well-suited to the task because of their expertise in research methods involving populations, demographics, human-animal interactions, and their experience with working in multidisciplinary teams. While Slater did describe the ways in which epidemiologists can cooperate with practitioners of other disciplines to attain a common goal, she did not present any drawbacks to her proposed approach. Voith (2009) added that veterinarians as individuals are in a good position to work with clients on responsible pet guardianship and educate the public, but did not discuss whether veterinarians have an ethical responsibility to help address issues associated with free-roaming dogs. Although many veterinarians choose to work or volunteer their time toward helping communities with pet issues, no published works could be found arguing for or against them having an ethical responsibility to do so.

Role of the Individual Community

In Canada, municipalities govern many of their own animal control variables. Animal control bylaws can determine, for example, whether owned dogs need to be licensed or tethered, or whether specific breeds are illegal to own (Clarke & Fraser, 2013). If a dog welfare issue is endemic to a particular jurisdiction, governing bodies may implement bylaw changes in an effort to curb certain human behaviour contributing to the problem.

3.2 Dog Population and Health Management Methods

This section examines available literature regarding different strategies that have been utilised to improve the welfare and control the population of free-roaming dogs, and whether these methods have been successful in rural, remote, and/or First Nations communities. Specific methods are grouped according to whether they focused on removal of the dogs from the community or work from within the community.

Several guides on free-roaming dog population and welfare management were found (Food and Agriculture Organization of the United Nations [FAO], 2011; ICAM, 2008; World Animal Protection, 2015; World Organisation for Animal Health (OIE), 2014). Although these guides at times cited scientific studies, and recommendations may still be useful in preparation of the Toolkit, the guides were authored and published by nonprofit organisations and not scientifically peer-reviewed. FAO (2011) summarily stated that there had been relatively few scientific studies devoted to assessment of free-roaming dog population and welfare management tools to date.

Removal-Based Strategies

Animal Rescues and Adoption

Despite the ubiquity of animal rescue organisations, little formal research has been completed questioning whether removal, sheltering, fostering, and re-homing outside a community improves the welfare of the community or mitigates animal issues in the long-term. Although removal of an abused or neglected animal would presumably improve the individual animal's welfare, no academic evidence could be found indicating that this type of intervention alone can improve a community's situation.

Shelter Euthanasia

In a chapter of a book about the ethics of euthanasia, biologists Ortega-Pacheco and Jiménez-Coello (2011) presented arguments for and against the use of euthanasia in controlling dog

populations. They pointed out that euthanasia can be effective in alleviating overcrowding or zoonoses in shelters by eliminating dogs who are unable to be adopted due to health issues, behavioural issues, or lack of demand. However, the authors found that in both developed and developing countries, euthanasia of healthy dogs is not an effective means of population control because of the species' ability to repopulate at such a rapid rate. They added that euthanasia is both expensive and ethically controversial and should be used as a tool only when necessary.

Culling

Hiby (2013) argued that culls and other kill-based strategies generally have low public support. According to Morters et al. (2013), many scientific studies have asserted that culling fails to control rabies or overpopulation issues due to rapid reproduction and inward migration of dogs. Dogs tend to move from an area of high population density to an area of lower density if the new area has resources (Jackman & Rowan, 2007). Dog populations easily approach the carrying capacity of the environment when there is a surplus of food, water, shelter, and humans who accept the presence of free-roaming dogs (OIE, 2014). A case study in Brazil also found that culling failed to control the zoonosis in question (visceral leishmaniasis) and exacerbated disease rates as the culled dogs were replaced with younger dogs more susceptible to a variety of infections (Nunes et al., 2008). Another study argued that culling increases the risk of rabies spread by removing vaccinated dogs from the population, who are rapidly replaced by unvaccinated puppies and adult migratory dogs (Cleaveland, Kaare, Knobel, & Laurenson, 2006). Ethicists have stressed that dog culling as a method of population control is morally wrong (Fennell & Sheppard, 2011). No scientific research could be found in support of culls for controlling population or zoonoses, or improving the welfare of dogs or humans, although a study in Samoa found that about one-quarter of respondents believed that killing or harming dogs was good for their society in some way (Farnworth, Blaszak, Hiby, & Waran, 2012).

Community-Based Strategies

Capture-Neuter-Return and Trap-Neuter-Return

Trap-neuter-return/trap-neuter-release (TNR) programs and capture-neuter-return (CNR) programs involve capturing free-roaming animals, surgically sterilising them, and returning them to their habitat when possible. Animals are generally also provided health treatment such as deworming and vaccination (Jackman & Rowan, 2007). TNR is a tool for controlling cat populations, utilising traps to capture cats. CNR programs, modeled after TNR concepts, have come about in recent years as a tool to control free-roaming dog populations (Jackman & Rowan, 2007). Traps are generally not successful in capturing dogs (Humane Society International, 2001).

Few publications have explored the potential of CNR programs at controlling free-roaming dog populations. Jackman and Rowan (2007) pointed out that besides directly reducing the number of births in an area, returning sterilised dogs to their original environments may also discourage inward migration and compensatory breeding. They concluded that some CNR programs in India and Thailand had been successful, at least in the short term, although program designs varied. They noted that community involvement was present in the successful programs. Hiby (2013) asserted that CNR has great potential as a tool for short-term dog health and population management when exercised in specific conditions in combination with other methods, but that CNR programs alone cannot achieve sustainable long-term results. Likewise, Jackman &

Rowan (2007) stressed that community involvement is a key factor in the success of any CNR program. Spay/neuter clinics are common CNR-based practice in many First Nations communities across BC, but no peer-reviewed published works could be found that examined the prevalence or long-term effectiveness of these projects.

Because of the lack of scientific data on CNR programs to date, this review included a brief examination of TNR programs conducted on free-roaming cat populations. Overpopulation in cats and dogs differs in many ways, but there are analogous features: both species are domestic, and free-roaming populations can quickly become out of control in communities (Foley, Foley Levy & Paik, 2005). Studies tended to agree that TNR alone is not effective in controlling cat populations (Castillo & Clarke, 2003; Foley et al., 2005; Longcore, Rich, & Sullivan, 2009). Using theoretical models of two TNR programs, Foley et al. (2005) found that over the course of eleven years neither program indicated a reduced population or a reduced number of pregnant females. Andersen, Martin and Roemer (2004), also using a model, demonstrated that a TNR program must be able to spay 88% of fertile females in order to stabilise the population growth of a colony. Furthermore, Longcore, Rich, and Sullivan (2009) conducted a review of scientific literature on the topic and concluded that TNR is inefficient and, for the most part, ineffective for feral cat population management.

Nonsurgical Fertility Control

Very few studies to date have assessed the use of contraceptive implants, contraceptive implants, and other nonsurgical fertility control measures in stabilising free free-roaming dog populations. Massei and Miller (2013) asserted that although nonsurgical fertility control is less costly and more efficient than surgical sterilisation efforts, it has not been widely utilised due lack of research on public perception, effectiveness, and sustainability. They noted a recent surge in academic interest in nonsurgical measures, which they attributed to technological advances and pressure from the nonprofit sector and the public to provide cheaper, safer, more humane, and more efficient alternatives to surgical sterilisation. The researchers also explored several case studies in which nonsurgical methods were discussed, finding varying levels of success depending on cultural differences, accessibility of the dogs, severity of overpopulation issues, and other factors. They concluded that according to available data, nonsurgical fertility control should be prioritised in future studies comparing effectiveness of free-roaming dog population control methods.

Several recent studies have explored the use of contraceptives in managing wildlife. Rutberg (2013) reasoned that contraceptives had not been fully utilised yet because of social resistance and the inherent delay of testing new drugs. Rutberg asserted that society might accept wildlife contraception if the conservation community were to voice support. Jackman and Rowan (2007) claimed that wild animals treated with contraceptives experience health benefits, as pregnancies are physically demanding and leave females more vulnerable to food shortages and dangerous weather. Contraceptives were shown to decrease mortality rate in trials with horses (Turner & Kirkpatrick, 2002) and deer (Rutberg, 2013).

Humane Education and Changing Attitudes

Studies indicated that beliefs, lack of knowledge about animal health, and childhood experience with animals may contribute to dog overpopulation or welfare issues. Research in Samoa of non-Samoan tourists' perceptions of free-roaming dogs found that the majority of respondents expressed their trip was negatively impacted by dogs, with 81% being supportive of more

effective population management (Beckman et al., 2014). These survey results were generally in agreement with results from an earlier anonymous questionnaire assessing local Samoan attitudes towards free-roaming dogs (Farnworth et al., 2012). According to the survey, Samoa has a very high level of dog ownership at 88% of households, which care for an average of two dogs each. The researchers argued that this positive cultural attitude toward dogs, combined with low rates of veterinary visits—less than a third of the dogs had seen a vet—significantly contributed to free-roaming dog welfare and overpopulation issues.

According to a study conducted in Mexico, attitudes toward free-roaming dogs vary according to the level of dog overpopulation and other factors (Ortega-Pacheco & Jiménez-Coello, 2011). In some rural towns municipally-sanctioned culling has taken place when the population of dogs becomes unmanageable, although this is not a socially acceptable means of addressing the problem among the general Mexican population, even if the dogs are considered pests (Ortega-Pacheco & Jiménez-Coello, 2011; Ruiz-Izaguirre, 2013). Ruiz-Izaguirre (2013) interviewed members of three small Mexican communities and found that although almost all villagers thought there were too many dogs around, dog overpopulation was not generally considered a major problem unless there was a rabies concern. She also noted a trend of an affection between humans and dogs, evident in the positive manner in which the dogs responded to community members with whom they were familiar, and vice versa. She attributed this to Mexican culture.

A handful of authors have explored the potential effects of humane education in schools on animal welfare in diverse communities. However, the three relevant publications found were a non-academic descriptive and instructional book published in BC (Weil, 2004), an American doctoral dissertation (Tisa, 2013), and a peer-reviewed study conducted regarding humane education resources in Indigenous communities in Australia (Constable, Dixon, & Dixon, 2013). Tisa (2013) found that students' knowledge, behaviours, awareness, and attitudes toward animals were significantly impacted by the humane education program she examined, but called for more research investigating the impacts of different programs on these factors in the longer term. Tisa advocated for the importance of collaborative partnerships in these initiatives. No academic studies on the effects of humane education in BC or in First Nations communities could be found, either published or unpublished.

Bylaw Development and Local Government Intervention

Little research has been completed to date on the effects of bylaws on pet overpopulation or improving the welfare of free-roaming dogs. There is some evidence to suggest that animal control bylaws, including ticketing and mandatory dog licensing, have a beneficial effect on the incidence of dog bites in Canada (Clarke & Fraser, 2013). This study, however, did not examine the effectiveness of bylaw variables on dog welfare or overpopulation, and was limited to Canadian urban municipalities, making no mention of Indigenous communities or band bylaws. The same study also pointed to a significant gap in data on Canadian animal control bylaw development and effectiveness.

An American legal researcher examined the potential effects of local ordinances (such as bylaws) that prohibit the sale of companion animals in pet stores, thereby encouraging adoption and repressing the market for dogs from puppy mills (Kenny, 2011). The study was descriptive, and the researcher did not aim to conclude that bylaws alleviate local overpopulation issues, although she did encourage further research that might support this assumption.

A third study explored spay/neuter legislation, advocating for more widespread bylaws that make spay/neuter a mandatory prerequisite to dog ownership (Zanowski, 2012). Zanowski cited examples in which introduction of such legislation successfully decreased shelter intake. She also pointed out drawbacks: significant expenditure on administrative costs instead of subsidies for spay/neuter programs, and difficulties in implementing legislation that may be viewed as paternalistic, triggering resentment in some pet owners. She concluded that in some situations, such as before a pet is adopted from a shelter, mandatory spay/neuter legislation is an appropriate means to alleviate pet overpopulation.

A recent Canadian study examined a community dog program that had been initiated by a town in Brazil (Kwok et al., 2016). The program, started by the local municipal government, encouraged community members to self-appoint as free-roaming dog maintainers. The researchers observed interactions between the dogs and humans, and concluded that the program showed promise as an effective model at improving the welfare of free-roaming community dogs. However, the study was not able to explore long-term impacts of the program.

Community Development, Participation, and Partnerships

McCrindle's (1998) influential study introduced the concept of a community development approach to improving animal welfare in Africa. The philosophy behind McCrindle's work was that one might need to approach these issues from a people-centered paradigm. This allows outreach workers to more easily obtain resources and effectively address animal welfare concerns in communities with significant human welfare issues as well. McCrindle asserted that by empowering and developing resource-poor communities, one may indirectly produce greater positive effects on animals in these same communities. Community development as a primary method of addressing animal welfare and overpopulation issues has not yet been a primary subject of quantitative peer-reviewed study in Canada, although researchers have more recently been exploring this concept as a key part of addressing animal welfare issues in communities (Arluke & Atema, 2015).

Two recent Canadian studies emphasised the power of participatory and multidisciplinary methods as catalysts of change when partnering with communities to address free-roaming dog issues (Schurer, Phipps, Okemow, Beatch, & Jenkins, 2014; Schurer et al., 2015). Both research teams, which were comprised of many of the same researchers, asserted that community consultation and participation are important elements of a successful partnership development process between communities and outside veterinary service or animal welfare groups. Schurer et al. (2014) claimed that their participatory pilot project was successful in stabilising the free-roaming dog population, increasing parasite control, and improving the short-term perceived quality of life of both the dogs and people in these Saskatchewan communities. They advocated for implementation of a community action plan and other participatory methods in stabilising free-roaming dog populations, adding that such methods also have the potential to improve public health and community well-being. They argued that without community engagement, methods such as spay/neuter clinics and low-cost veterinary services fail to address the root causes of animal welfare issues. The researchers also indicated a need for a community-specific approach depending on the unique issues the community is facing. Storytelling may be a useful and culturally-appropriate method of information exchange about dogs in some First Nations communities (Riche, 2015; Schurer et al., 2015).

Researchers in Bali, Indonesia utilised participatory methods to assess and improve the welfare of unowned free-roaming dog populations in two rural villages (Morters et al., 2014a). They asserted that their choice to use participatory methods allowed for greater inclusion of local knowledge in their data, but they did not discuss any specific benefits to the communities through participation.

Toward Best Practices

Despite the array of studies assessing specific methods and tools in dog population and welfare management, few have compared the efficacy of different strategies. Hiby (2013), however, asserted that actual strategies are of secondary importance. She argued that because every community and population of dogs is different, stakeholders should first collect information from the community, define the problems together, and determine what has been tried already to solve them. Then, and only then, should partners develop a sustainable strategy. She further added that a formation of multi-stakeholder group, such as a committee, is a good way to approach the data collection stage, leading to well-informed decisions. Such committees might include representatives from the community, local government, veterinarians, animal welfare organisations, researchers, educators, or media (Hiby, 2013).

Many researchers have acknowledged a benefit of using historical context in providing effective interventions. Canadian researchers investigated the historical significance of dogs in Inuit and First Nations culture and livelihood, an effort they believed important in understanding the context in which the dogs and their people live today (Laugrand & Oosten, 2002; Riche, 2015). Riche (2013) asserted that dogs in Indigenous communities are experiencing an identity crisis of sorts: No longer are they relied upon as they were for hunting, protection, travel, and other tasks, but nor are they necessarily considered to be pets. They exist somewhere between the realms of culture and nature - part domestic, part wild. Riche (2013) recounted her experience volunteering for a spay/neuter project in an Inuit community in Ontario. She perceived that her team's homogenous whiteness, in spite of the aid of a liaison, contributed to an "us/them divide" (p.155) that was difficult to breach, worsening over the course of the project. She spoke of bias and privilege as states that often go unquestioned on the part of the non-Indigenous animal advocate. She attributed the divide in part to non-Indigenous Canadians' fundamental lack of cultural understanding of the status, use, and history of dogs in Indigenous communities.

Researchers in Australia also asserted the importance of context. According to Constable, Dixon, and Dixon (2010), Indigenous Australians formed a rich historical relationship and bond with dogs that grew from interdependence for millennia. They stated that this human-dog bond remains strong despite Westerner-perceived animal welfare issues associated with free-roaming dogs in these communities. Constable, Brown, Dixon, and Dixon (2008) investigated factors contributing to poor human and dog health in rural and remote Indigenous communities, finding that people had a high knowledge of observable animal welfare issues, but low knowledge of less-visible issues, like parasites. They found a variable rate of knowledge about proposed solutions (veterinary care, fences, spay/neuter), but a high average motivation to access solutions, because the dogs were well loved by the people who knew them.

3.3 Summary

Researchers in recent decades have explored the welfare, treatment, behaviour, ecology, economy, impact, and ethical considerations of free-roaming dogs from a variety of

perspectives. Some researchers have taken a descriptive approach to free-roaming dogs, while others attempted to determine the best ways to stabilise dog populations and increase overall animal welfare.

This section explored the extent to which researchers have explored the roles of stakeholders in addressing dog overpopulation and welfare issues. Some experts argued that the dogs are a societal problem, whereas others argued for a shared responsibility to varying degrees between the nonprofit sector, governments, scientists, researchers, and local communities.

Research on strategies for addressing dog population issues generally focused on one of a few methods: shelter euthanasia, dog culls, capture-neuter-return, and different types of community development and engagement strategies. There are significant gaps in the academic literature examining the impact of animal rescue (removal and adoption of dogs outside a community), humane education, and animal control bylaw development. Free-roaming dogs exist worldwide. Canadian studies were limited and primarily descriptive.

According to the available research, it appears as if best practice guidelines in addressing dog issues in a particular community should focus on partnership development, problem definition, and utilising dog population management strategies as tools, rather than solutions.

4. CONCEPTUAL FRAMEWORK

This project has been conducted through a historically sensitive lens, which assumes that dog overpopulation problems and other animal welfare concerns arising in First Nations communities are the result of systemic issues stemming from colonialism and trauma (Nadasdy, 2004). The lingering emotional, mental, and physical effects of cultural disruption have led to an unimaginably complex system of ongoing social suffering (Alfred, 2009). Previous exposure and subsequent desensitisation to traumatic events regarding animal welfare, such as canine culls, was kept in mind during all stages of the project.

Collection and analysis of the primary data utilised a phenomenological framework, aiming to capture as well as possible each of the unique subjective experiences of participants, without leading them to particular conclusions through the interview questions nor the interview experience itself. Along these lines, interviewees were allowed to speak freely for as long or as little as they chose to, without efforts on the part of the interviewer to force the participant to remain on the topic of each question at hand. The questions themselves were mostly open-ended, to allow best for this freedom of thought and emergence of themes.

By way of a grounded theory approach, themes were extracted from interview data. Interview questions were formulated, and most interviews were completed, before the literature review was conducted. However, the literature review also plays an important role in the project's conclusions and recommendations for the Toolkit, as it serves to broaden the array of perspectives to include the reliable voice of the scientific community. Figure 2 presents a visual representation of the way in which these two data sources combine to form a more complete picture.

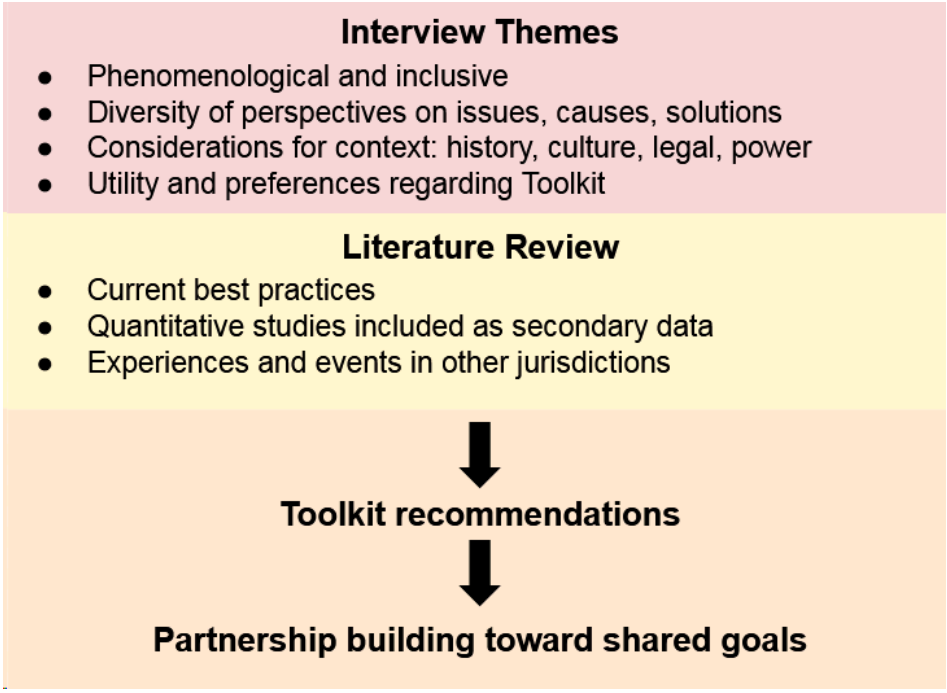

Figure 2. Conceptual Framework

5. METHODOLOGY AND METHODS

This section outlines the project's qualitative research methods, describes how data was analysed, and discusses the limitations in the project design. The project is primarily descriptive in nature, and methods include an in-depth literature review and interviews from five groups of participants.

5.1 Methodology

The project combines qualitative analysis of primary data with both qualitative and quantitative secondary data presented in the literature review. A descriptive methodology was chosen for its flexibility in exploration of the research questions, allowing for emergence of themes and patterns through analysis of primary data. The design allows for inclusion of quantitative data and critical analysis through inclusion of peer-reviewed research in the literature review, providing a rationale for many of the recommendations put forth for the Toolkit development.

The descriptive nature of the project provides a more informed contextual overview of the current dog situation in many communities as unintrusively as possible, while also at times providing opportunity for deepening and strengthening of partnerships between the BC SPCA and participating communities.

5.2 Methods and tasks

The project utilised interview data from five participant groups as primary data:

Group 1 - Community Members from First Nations Communities - *Nine participants*
Group 2 - First Nations Association Members - *One participant*
Group 3 - Animal Welfare Organisation Members - *Two participants*
Group 4 - Bylaw Officers and Cruelty Investigators -*Three participants*
Group 5 - Experts -*Three participants*

Participants in each group were selected using purposeful sampling. Group 1 participants were identified by contacts supplied by the BC SPCA (not necessarily affiliated with the BC SPCA) who had a connection to the community in question through their job or volunteer work. Some of these contacts were also interviewed as participants in Groups 3 and 4. Participants from Group 2 were identified by the researcher and asked if they would like to provide input as representatives of First Nations Peoples heritage and cultures. Participants from Group 5 were approached because of their leadership role in partnering with Indigenous communities on dog issues, as well as their positive reputations among animal welfare groups across Canada.

Consent was informed, voluntary, and could be withdrawn at any time. Risks to participants were reviewed by the University of Victoria's Human Research Ethics Board. Risks were identified in the Consent Form (Appendix A). Tape-recorded interviews were conducted in-person whenever possible, and always offered to participants in Group 1. Most interviews were conducted over the phone. Others preferred to write their answers out. These participants were given the questions (by email or in hardcopy), recorded their own answers in text, and returned them to the interviewer, again either by email, fax, or hardcopy. Hardcopy answers were handed directly to the interviewer.

Interview questions were semi-structured initially following a set of questions designed for each participant group (Appendix B). As each interview proceeded, additional clarifying questions

were asked to elicit deeper information depending on each participant's interests or experience. Participants from Group 5 were treated as elite interviewees because experiences varied greatly depending on their area of expertise or location in the country. Group 5's initial question set was shorter than the others, but questions were designed to allow for a more narrative flow.

5.3 Data Analysis

Interview data regarding specific population control and welfare improvement methods was not taken as fact that would apply to all populations of dogs, but rather as local opinion and preference for specific tools.

Each interview recording was digitally transcribed and hand-coded for themes, which were identified as concepts, perspectives, behaviours, and ideas that came up often, and was compared with variables such as participant group membership, location, and whether the participant identified as First Nations. Because of the inclusion of elite interviewees, unique perspectives were also given attention in analysis.

5.4 Project Limitations and Delimitations

One limitation of the study was participant refusal or withdrawal. Only a small number communities approached ended up participating. Furthermore, some individuals were hesitant to invite the researcher into a community they had been working closely with, for worry that it might in some way damage the relationship they had worked hard to develop. Because the researcher was only able to access a small number of communities, it may not be appropriate to draw conclusions about communities province-wide; every community has unique history, resources, culture, issues, and preferred solutions. However, in combination with participants from Groups 2 through 5, a broader perspective was obtained that acknowledged different community variables such as access to resources and proximity to a city.

Primary data was cross-sectional and therefore limited in future application, as issues of dog overpopulation are sure to change over time. If participants had been interviewed, for instance, before and after implementation of a dog welfare program, useful information could be obtained that provided greater insight into the advantages and drawbacks of a variety of partnership-building and dog intervention strategies in different situations.

The choice to use open-ended interview questions likely allowed for depth of data from each participant, but the length of interviews (about an hour each) limited the number of participants that the project was able to include. However, purposeful sampling can yield rich data in spite of a relatively small number of participants (Patton, 2015).

An important delimitation of the project is the focus almost entirely on BC First Nations, despite First Nations Peoples living throughout Canada. Because the BC SPCA only has contact with communities within the province, it was most appropriate to collect data from BC residents and communities. An exception to this was the Experts, two of whom were based in other provinces. Another delimitation was the intent to include the First Nations perspective whenever possible through the data collection process. Although the majority of participants were First Nations, the researcher would have preferred to have a greater number of community members represented in Group 1, and a greater number of participants in Group 2.

The participant groups themselves were chosen under the assumption that they are the most critical stakeholders in the issues. The researcher recognises that other stakeholder groups

(such as children, policymakers, private sector actors, or educators) may have had useful information to bring as well. This delimitation was required, however, to ensure that the project remained relevant, attainable, and manageable to both the researcher and the client.

6. FINDINGS

This section summarises the opinions expressed in the key informant interviews. Interviews were structured in a way that aimed to both answer the research questions directly and allow for new themes to emerge.

The findings are organised into four parts: the current dog situation, contributing factors, best practices for addressing dog welfare and overpopulation in these communities, and best practices for partnership development between communities and BC SPCA. Themes emerged across groups, and within specific groups.

Contributing factors to the dog issues included a complex array of historical and cultural factors, and rurality and resource access emerged as aggravating factors. When discussing best practices for dog population and welfare management strategies, there was a broad range of opinions, with many participants in favour of dog sterilisation programming and humane education, in combination with other strategies. Participants provided a lot of data about best practices for partnering with First Nations Peoples. Major themes included developing good relationships, moving toward community autonomy, investing in BC SPCA staff, and bringing RCMP and local animal rescues into the partnerships.

6.1 Participant Groups

Of the 18 total interviews, 7 were conducted in-person, 5 over the phone, and 6 written or by email. Some participants preferred not to be identified in the report. These people were kept anonymous by attributing responses to their participant number instead, the first digit identifying the Group (e.g. 3-2 would be from Group 3).

Groups 1 and 2: First Nations Group

Group 1 consisted of First Nations community members from three communities in the Northern Interior. The communities ranged in degrees of remoteness, access to resources, and bylaw status. They were all near a small municipality but several hours' drive from a large municipality. A total of nine community members took part in interviews, and each choosing to participate due to wanting positive change for dogs. For the purposes of this project, positive change was understood to be an improvement in objective welfare, as defined by the participant. For example, welfare improvement might include a greater level of any of the "Five Freedoms": freedom from hunger, thirst, pain, injury, disease, distress, discomfort, or freedom to express normal behaviours (BC SPCA, 2017d).

Group 2 (leaders of First Nations associations) only had one participant. The data from Groups 1 and 2 were analysed together at times, as the First Nations Group. This is not to say that they represent the perspectives of First Nations Peoples or whole communities, but for the most part these two groups agreed on contributing factors, preferred interventions, and best practices at building partnerships, although one participant (Group 1) thought that there were no current or past issues with dogs in his community.

Groups 3, 4, and 5: Partners Group

There were two participants in Group 3 who were leaders of animal welfare organisations with experience in partnering with local First Nations communities. Group 4 consisted of one First Nations community bylaw officer and two BC SPCA animal cruelty investigators. Group 5

consisted of three experts who had experience in developing, managing, leading, and researching different partnership initiatives, each utilising slightly different strategies. Groups 3, 4, and 5 were sometimes analysed together as “Partners” of First Nations communities when their opinions aligned.

6.2 The Dogs

Many participants acknowledged that each community is different culturally, historically, or situationally. Each community consequently has a different relationship with their dogs today. There was emphasis from at least one person in each Group that individual communities must be considered in their own unique context.

Historical Importance

According to participants, dogs are important to Indigenous peoples for a variety of reasons. Most said dogs have been a part of First Nations culture and history for a long time. One person pointed out that in some parts of the country, certain dog breeds were introduced by European settlers. Participants overwhelmingly stated that until only recently, dogs have been an important part of the livelihood of a community - they helped hunt, they checked traplines, they were used for transportation by pulling sleds or guiding in the bush, they protected humans and warned them of danger, they watched over children, and have also been considered companions, providing company. For these reasons, many participants agreed that dogs had been crucial to the survival of their communities. One First Nations person said that “dogs are always there, in the background.” Overall, the First Nations Group tended to state that dogs have been around as long as they can remember, including through oral histories. The Partners tended to echo this sentiment as second-hand knowledge from First Nations people they had spoken with.

However, it was also noted that things have changed for the dogs in recent decades:

> I don’t know why [the dogs] are important and I don’t know if it matters if I know why they are important. I think there’s all sorts of meaning around power and control and residential schools and traditional uses of dogs but has that all gotten lost in what dogs are today? . . . Dogs are lost between that traditional use and what they will be for people and I think people are struggling with that themselves. And the communities are struggling with that, to find this new place for dogs. People that I talk to, when I ask them why they have dogs it’s not an easy question. Most people just say they’ve always had them. (J. Hannah, Group 5)

Dogs Today

Participants were asked to describe the dog situation in the communities they live in or are familiar with. These dogs were said to each have a human owner (or guardian), and large dogs tend to be either free-roaming or tethered on the guardian’s property. Some guardians bring their dogs inside at night, whereas others leave their dogs free-roaming or tethered at all times. Participants across groups described lifelong tethering of dogs as an animal welfare issue, but some also acknowledged that by tethering, guardians can avoid unwanted litters or fines.

A few participants implied that some people see dogs as a status symbol. Jessi (Group 1) stated that “compared to some other people that have dogs, [my colleague] has them as part of her family. Other people just get dogs and then . . . have them tied up outside, just to have

them." Valerie (Group 3) added that "the little dogs seem to be inside . . . and the big dogs seem to be more outside" and speculated that that could be either for protection or for status. Participant 2-1 noted that in some communities "there is a romantic notion of ownership."

> Typically larger dogs certainly are outside the property. It's an ownership thing. But we are seeing somewhat of a change with regards to types of dogs that [local communities] are getting. Ones that are inside are certainly moving up the ladder into the family unit. (Erika, Group 4)

A participant from Group 5 pointed out that dogs are status symbols in urban locations as well. Many stated that community members are obtaining different breeds of dogs, and smaller dogs are becoming more common on reserves. Statements about the dogs today were balanced across groups.

The Problems

Problem definitions varied between groups. Almost all First Nations participants voiced concerns for children's safety, as dogs have tended to target them for their school lunches. The dogs hang around schoolyards, and children will witness dog fights and males harassing and mating with females in heat. Partners usually expressed that they had both animal welfare and public safety concerns. There seemed to be a consensus among all groups that the free-roaming dogs are problematic when they start forming packs ("packing up"), or when they are starving, as hungry dogs tend to become more destructive or aggressive, and are more likely to attack people, other animals such as cats, or each other. It was pointed out that dogs start to form packs when they become numerous enough (no specific numbers were mentioned).

Many expressed that animal welfare was a concern in the community, and most community members (six of nine) described having seen animals abused or neglected. Participants who had worked with children in a humane education setting (Group 3) described the impact of fear of dogs, dog attacks, and dog culls on the children. Some children had said to these participants that they had been disturbed by seeing piles of dead dogs. Other children did not seem to have been bothered by the culls.

Welfare issues mentioned that were specifically faced by intact (not spayed) females included aggressive mating from free-roaming males throughout the time she is in heat, and the physical toll of multiple litters (Groups 1, 3, and 5). Pregnant and lactating females also require access to a significant amount of fresh water as they develop and feed their puppies. During cold months, females who have not been provided adequate water by humans must eat snow to survive. According to three participants (Groups 3 and 5), these dogs and their puppies have significantly reduced chances of surviving to the spring.

While almost all participants expressed that there were "too many dogs" in their community or the community they work in, some argued that the number or density of dogs is not the problem. One participant (Group 5) had seen communities with only about ten dogs that were extremely problematic, while others had over two hundred dogs without the community indicating that there was overpopulation. She offered that instead of the issue being overpopulation, it is an issue of neglected free-roaming or tethered intact dogs, where neglect is understood to be a guardian's failure to provide adequate care for his or her dog. Overpopulation, on the other hand, implies a "dog issue" whereas neglect is a human behavioural issue. Several participants (particularly in Groups 1 and 4) mentioned neglect specifically as a reason for dog issues in

their area. The size of the community did not appear to have an impact on the severity of issues, although only a small number of communities were discussed.

Some people from Group 1 noted some abuse issues as well, such as Participant 1-2:

> My daughter came back and said, “Can you come home there's something on the steps!” I brought the box inside and took it apart slowly to see what it was. Went faster as soon as I saw what it was, it was a little cat trying to get some air. And that’s how we found our first cat. Somebody brought him here and they did that. And then on top of that, the other kids… our cat was walking down the trail and the kids ran over them. That was one of our first cats. . . [The kids] are bored, they got nothing to do.

6.3 Contributing Factors

A theme that emerged from discussions about contributing factors was that dog problems are caused by human problems. Groups tended to agree on major factors that have contributed to dog welfare or overpopulation issues.

Historical Factors

The persisting effects of Canada’s residential schools came up a few times in interviews (Partners Group only). Opinions were that colonial abuse and interference had led to normalisation of violence and neglect, and the transformation of a dog’s purpose. Many expressed the opinion that past and present trauma, combined with poverty and isolation, has led to chronic states of crisis, with dogs suffering as an inevitable consequence. Partners believed that communities facing crises like poverty, addiction, or youth suicide, have to prioritise these issues over dog issues, although it was often added that most people care deeply about their dogs. A common thread across all groups was people doing the best they can with what they have.

No participants in the First Nations Group specifically discussed colonialism or residential schools.

Cultural Factors

Cultural differences between First Nations and outsiders, such as spiritual/religious beliefs or traditional practices, were mentioned across groups. Many band members rely on information passed down from elders in their community. This means that without elders’ approval, partnerships with animal welfare groups are unlikely. Some said that a common belief among many First Nations is that neutering dogs is not ethical because it is an alteration of the dogs’ natural state. Breeding dogs can also be a viable source of income; some community members or animal rescues will pay money for puppies.

Rurality and Resource Access

The Partners, who each had experience partnering with multiple communities, all agreed that the more rural or remote a community, the more barriers to a healthy dog population they generally experience. It had been observed that the more remote a community, the more free-roaming dogs it tended to support. Some also noted that it has been harder to partner with those communities due to a trend of mistrust of outsiders. This was attributed to historical trauma from outsider interference in the communities, and more recently, experiences with animal rescues stealing dogs or breaking promises to return dogs after spay/neuter. One First

Nations Group member also mentioned a recent cull reportedly conducted by the RCMP without the community's permission:

> Five years ago RCMP officers were shooting dogs right on the streets, these little dogs, running around shooting them. My daughter reported them and they did get in trouble for that. The kids they don't like their lunch, they throw them in the ditch and the dogs eat it, and then they got shot. (Participant 1-2)

The more isolated communities also had greater issues with affordability and access to resources like veterinary care, dog food, humane education, and response of cruelty investigators. Most of Group 1 expressed antagonism toward their local veterinarian, who was said to overcharge for services. Generally, communities do not have their own vet and need to drive to the nearest town to access services. It was also said to be impractical to take a dog to the vet if they had never been unchained or in a car. Some communities had run out of dog food, or the residents had been unable to pay for it. A few had at times chosen to feed their pets instead of themselves.

Some communities were also said to be isolated socially. Band members might not speak English or have access to relevant information or technology. A participant from Group 3 illustrated the effect of social isolation with an example from her work:

> We've dealt with some major grooming issues in some communities because nobody told them you have to cut your poodle's hair! [The guardian] kept bathing him hoping it would wash off . . . it's easy to look at this dog with these massive dreadlocks, and he can't see because there's this matt hanging over his eyes, to say the owner's neglecting him. How dare they. To have these preconceived notions and think, this is horrible. Well, it was horrible! But when you talk with the person, none of it was intentional. The dog still slept in her bed. (Willow, Group 3)

According to participants from Groups 3 and 5, social media appears to be emerging as a promising tool for mitigating social isolation, sharing of knowledge, and for band members connecting across and within some communities. One person suggested that social media might prove to be a more effective tool for improving animal welfare than spay/neuter clinics. However, not all communities nor community members have access to technology that would enable them to connect online.

6.4 Dog Management Strategies and Tools

Group 1 were residents of communities that had formed a partnership with a local animal welfare organisation or rescue. Most said that after the partnership's population management activities, there were fewer free-roaming or tethered dogs, and that remaining dogs had better lives—they were well fed, less aggressive, and better cared for overall. The strategies employed in these communities included a combination of spay/neuter clinics (repeated over multiple years), humane education programming, and rehoming of unwanted dogs.

Participants in each group made mention of animal control or responsibility bylaws, and Groups 4 and 5 in particular stressed the importance of well-worded and well-functioning bylaws. Bylaws in place in communities varied although this was not discussed in depth with any participant. Specific bylaws discussed were tethering, keeping dogs on leads or otherwise under control, providing basic care, or not tethering for extended periods of time.

Community development was named as a strategy by only one participant, but many participants communicated in some way that empowerment of a community to help itself is a good strategy.

Spay/Neuter

Participants across groups mentioned that they knew of First Nations communities that had experienced events (like removal of dogs without permission) or behaviours (like judgemental attitudes) that had led to the communities having a negative impression of animal welfare organisations as a whole. However, participants from Group 1 spoke positively of their personal experiences with spay/neuter clinics in their own communities.

Most participants who had organised or helped with dog population management efforts indicated that success and sustainability of spay/neuter efforts depends more on the level of community engagement than any other factor. Another factor was said to be accessibility for the community. Suggested ways to ensure accessibility included having clinics within walking distance, open to the public, and financially feasible (or free).

A third key element of a successful program was said to be access to a high majority of the total population of free-roaming dogs. According to participants from Groups 3 and 5, the longer you run programming, the more dogs you should be able to spay/neuter. This is because community members are more likely to bring their dogs to a spay/neuter if they trust the organisation, and trust was said (by all groups) to be built up over time.

One participant, a veterinarian who has been performing outreach programming in First Nations communities for many years, argued for spay-only clinics. She asserted that spaying dogs has a greater effect on the reproductive capacity of a dog population than does spaying in combination with neutering. She also argued that despite popular belief, neutered dogs can still be aggressive.

> Some of the worst dog fights . . . are between neutered males. . . dogs on reserves do not follow the same lifestyles as the dogs we have in our cities, or even on our farms. They're in a totally different context. And I can tell you if they're hungry and there's a piece of food on the ground, it doesn't matter if they have their testicles on or not, they're going to fight for that piece of food. So the only time you neuter a dog and it becomes helpful is if you have a female in heat, and then there won't be males following her around town. . . . So we have about ten males running around. The top half is really aggressive, doing all the breeding, and the other half is not. Well I can tell you those five badass males . . . nobody can catch them, nobody can put them in a vehicle. What are you going to do, neuter the five satellite males that aren't doing any of the [breeding]? They are not even aggressive. What I'm asking is why do you do a spay/neuter clinic? It should just be a spay clinic. (Participant 5-3)

Contraceptive Implants

Participant 5-3 was the only participant to mention contraceptive technology as a tool for addressing population and welfare issues. She stated that contraceptive implants are inexpensive and much less invasive than spaying. Spaying females who will not have access to fresh water or a safe place to rest puts them through a painful ordeal and leaves them at great risk of death from dehydration or infection. Contraceptive implants are minimally invasive, and vaccines, microchip, and parasite control medications can be given at the same time. On the

other hand, the implants last for only about 18 months, so she suggests that a spay be done as well but only after the dog has reached a certain age.

> [Y]ou finish with a spay, you don't start with a spay. You don't take a dog to a spay at whatever time of the year and return her to the environment without painkillers for several days after, and no water. Letting her go back into the snow. Her belly has been shaved. That is not fair. So to me, you do the implant. Two implants covers three years, and then if she has survived that means she's well-owned, she knows how to survive, *then* you spay her. . . . I was in one community at a spay/neuter clinic. They did over fifty dogs. A year later we found no more than ten of those. And that's because, and I don't have the data to prove it, and every community is different but generally in [rural Ontario] communities they have ditches on either side of the road where they run water. So when you spay them in the springtime people don't give water to their dogs and the dogs need to go lay down in the water and drink. So when you spay/neuter a dog and they go lay down in the water they're going to end up with [an infection]. That's horrible.

Although contraceptive implants have excellent potential as a tool, Participant 5-3 said they are best used in combination with education and engagement of community members. These elements can be achieved through relationship-building with dog guardians during outreach activities. Community members had been receptive to her team's use of contraceptive implants on their animals.

Removal and Rehoming

Opinions on dog removal and rehoming (rescue) were variable. Provided the guardian has consented, participants were generally in favour of removal of a dog for spay/neuter and rehoming. There was an emphasis on rehoming the animal locally if possible, such as to the home of another family member. Participants were also divided on whether or not a rescue should remove dogs who do not have a guardian. Concerns included the possible perception of outsider interference in the community or ulterior motives of rescue organisations, while supporters pointed out that removal of feral or unowned dogs with the community's explicit consent can be a relationship-building activity and an opportunity for spontaneous humane education.

Participants were cautious about owned dog removal for the following stated reasons:

1. It risks damaging trust between the community and animal organisations if there is any perception that the organisation is taking dogs without full consent. Some participants had known or heard of a rescue that had promised to return a dog after medical treatment, but did not.
2. It disempowers individuals or bands to seek solutions within the community.
3. If a rescue agrees to take puppies but does not require that the mother be spayed as well, then the community is not benefiting. The organisation itself may benefit from good publicity, but it is at the expense of the community.
4. Dogs who have lived outdoors or on a chain sometimes have a difficult time adapting to life indoors. This poses ethical questions regarding the welfare of those dogs.
5. Simply removing dogs does not address root causes of welfare or overpopulation issues. One participant called it a "Band-aid on brain surgery".

6. Rescues are minimally regulated.

Participants who discussed the above points each stated that there are rescue organisations doing admirable and sustainable work with communities.

Humane Education

Humane education came up across groups as a sustainable approach to dog welfare improvement and population control. More formalised humane education in schools with children was discussed in depth, as well as casual education during community visits or outreach activities.

Two participants from Group 3 had visited communities' elementary schools to teach humane education programs. Both advocated for humane education practices as a sustainable way to change individual and community attitudes, and argued that without the education piece, no program would be effective long-term. There was agreement that children are particularly receptive to new ideas. When they take those ideas home, adults listen to them. These participants also offered advice for successful humane education. Materials should be fun, positive, culturally relatable, and have lots of visuals. Hands-on activities are encouraged rather than handouts. Suggested discussion points included dog needs relative to human needs (both need health care, food, clean water, shelter, and social interaction), the positive effects of sterilising dogs (health benefits, fewer puppies, no mating, less aggression, fewer behavioural issues), and how to interact safely with dogs, including preventing bites.

Participants spoke supportively of humane education in schools. One participant asserted that although humane education is important, teaching bite prevention to children must be approached with caution as it might interfere with the deeply authentic relationships that many of the children in First Nations communities share with their dogs:

> [T]he context in which children engage and live with dogs in my experience in First Nations communities is more authentic than anywhere else. . . . When I'm there and it's eight o'clock at night and the kids are outside and the dogs are outside and the dogs are running after their kid on a bike and the kid is running after the dog, and over here the kids are playing hockey and they're waving their stick at the dog to keep the dog away. So there's just this totally moving, blended relationship between dogs and kids and I don't want to change that relationship which is really rich. . . . I want them to learn to live with dogs in their context. (J. Hannah, Group 5)

According to those familiar with humane education, efforts are usually intended for younger children, but there is also great potential for change through interactions with teenagers. Some pointed out that depending on the community and the context of the issues, change may be apparent sooner in the community when humane education is geared towards older youth as well. Teens are soon to be adults, deciding the fates of the dogs around them. Data collection was said to be an important part of assessing the effects of different programs on different age groups. Relevant data might include changes in attitudes toward animals and increases in knowledge about animal care and behaviour.

Many participants without direct experience in humane education also believed that it influences the sustainability of other welfare or population management activities. Groups 4 and 5 in particular said they try to include education in outreach activities. A variation of the phrase "education is key" came up during each interview with Group 4 participants. Two participants

from Group 1 said that bands would probably like to be involved as well, perhaps facilitating workshops for kids during the summer months.

Bylaw Development and Enforcement

Participants from across groups stated that they had seen or heard of some success with animal-related bylaws as a tool for improving animal welfare in First Nations communities. Most community members stated that their band had animal control bylaws in place but that they were not easily enforceable. One participant explained:

> [B]ands and chiefs and councils have very restricted powers. They can pass bylaws, but the bylaw has to be approved by a Minister [of Indigenous and Northern Affairs Canada] him- or herself. The Minister normally has a gazillion things, a whole workload, and generally the bylaws are a low priority. So one of the bylaws that bands generally pass are about dogs. There are probably a lot of bylaws about dogs but the next step is the enforcement of the bylaw. And the only enforcement we have on reserve are the RCMP. And to get action from the RCMP, it's all or nothing. It's not the measured approach of the old days, it's "well you've got a dog problem? We'll round them all up and cull em." Or tell people to. For the older generations that was very much an actual act. If your dog turned on your grandbaby, you would pack them all up and go for a drive. (Participant 2-1)

Some areas had a dog catcher that would take free-roaming or neglected dogs to the pound, which is generally within or near the community. However, participants expressed frustration that guardians would be able to pay to get their dog back, with no other consequences such as criminal charges or forfeiture of the dog. One member encouraged creative bylaws, like increasingly severe penalties. An example was fines for the first few infringements but then the dog gets put up for adoption. More than half of the First Nations Group specifically acknowledged that bylaws are difficult to enforce without a designated bylaw officer, or stated that they do not have adequate access to cruelty investigators. Seven (of nine) Group 1 participants said they would be open to BC SPCA assistance in either developing animal control bylaws or partnering to improve capacity for enforcement.

Group 4 went into depth discussing best practices in development and enforcement of First Nations animal-related bylaws. Their suggestions are summarised in Figure 3.

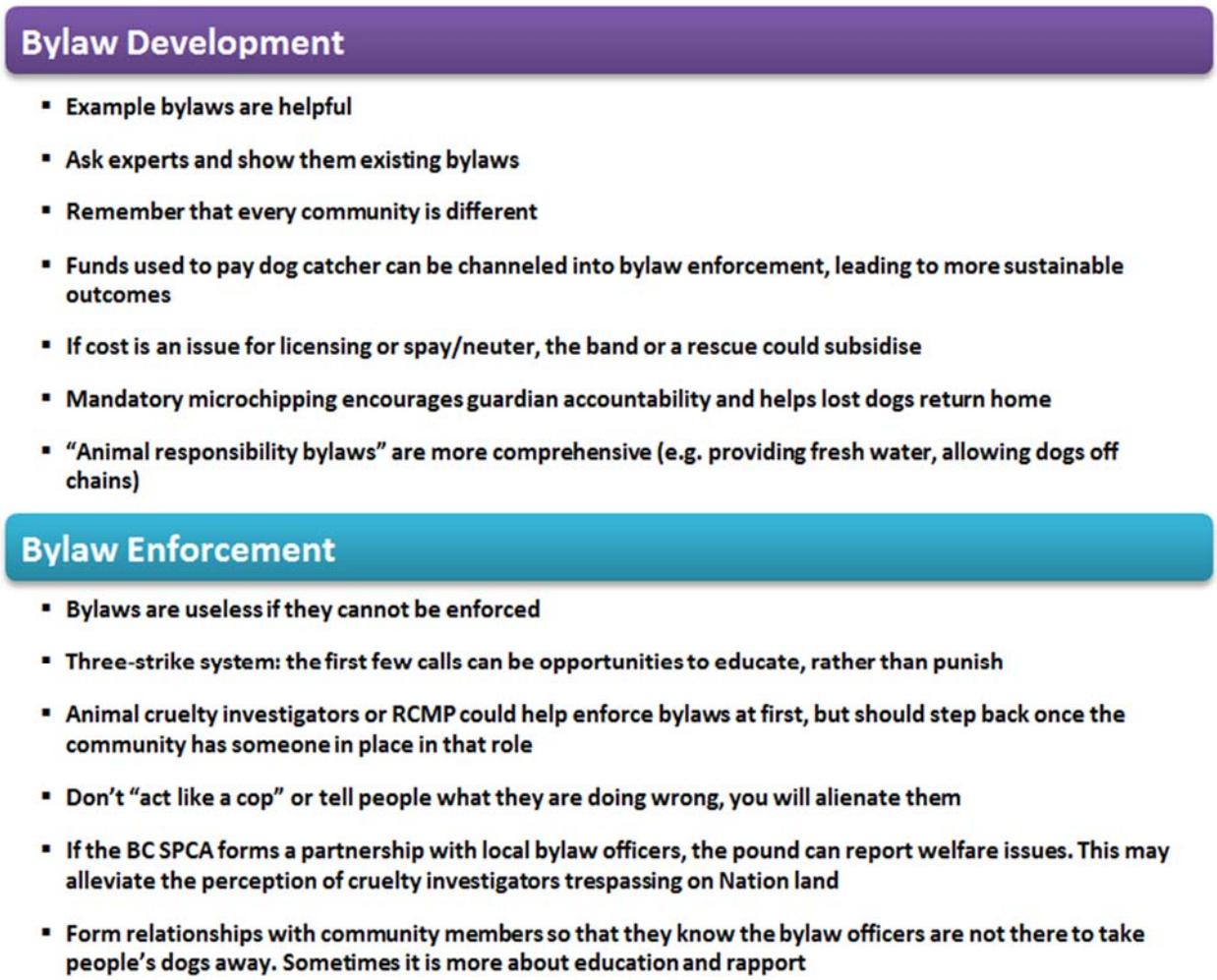

Figure 3. Bylaw Development and Enforcement

Community Development

One participant in particular described community development as a strategy to address dog issues. She maintained that empowerment of a community to change their own situation is the best way to move toward positive change for its dogs:

> [S]o much of our energy is focused on dogs without understanding what the people think and how they would prioritise helping themselves. Because that would be the best plan, to empower communities to help themselves. But we forget the people part and dogs are domesticated animals, and so every change that we want to take place for the dog comes through a person. (J. Hannah, Group 5)

In thinking big picture, more change might be achieved for animals by helping the people have the tools to nurture the animals they care for. These tools include knowledge and resources related to animal care, but also resources for humans, like access to fresh water and healthcare. The anticipated outcome of community development is empowerment from within the community to address issues in its own way. This empowerment happens over time through partnership-building activities. These activities may also solve a practical issue, like a need for fences or dog houses. Other activities might include outreach or education on how to organise spay/neuter efforts so that communities can conduct them independently. The participant

advised that a key part of any programming must be that one listens as much as or more than one talks; the community members will tell you what needs to be done to solve the problem. For more information on this participant's work in Northern Canada, see IFAW (n.d.a). It is worth noting that several Partners voiced that learning from community members through genuine listening can be deeply valuable to those who are privileged enough to be trusted with such relationships.

Many participants (Groups 2, 3, 4 and 5) expressed some form of belief that human health and welfare is linked to the welfare of a community's dogs. They pointed out that people who are dealing with a crisis have fewer resources and time to spend on dogs. One participant (Group 2) suggested that a community health initiative might be an effective starting point for a partnership, particularly in more rural communities:

> I think if you work it in a way that you talk about it being an investment in community health, because dogs do provide companionship, for kids especially. And especially a dog that's well loved and cared for will most definitely be loyal to the family and part of them. I think if you talk about it in terms of a health initiative, a community health issue, especially now with the First Nations Health Authority being more responsive, you might get more money to do more of those [spay/neuter] clinics. You may get the means to have the SPCA come on, in a friendly manner, in a community setting. (Participant 2-1)

Less Effective Methods

Many stated that dog culls have always happened in First Nations communities. It is a way of life. Some had noticed a local shift away from culls as a publically acceptable means of controlling dog populations. Culls do decrease the total population of dogs, but many noted that even immediately after a cull, other dogs enter into the community to claim the territory once the more dominant dogs are gone. One participant discussed the "bounty per tail" that a band may announce when a cull is called for:

> [G]enerally we're asked to come into communities because they're sick of shooting dogs. One community that I'm working in they had to raise the bounty per tail to $200 because nobody wanted to shoot the dogs anymore. They don't like it, nobody wants to do it. . . . So they shoot the dogs and they cut off the tails as proof that they've killed the dogs. (Willow, Group 3)

One participant (Group 1) was in favour of an enforceable ban against pit bulls, while another (Group 4) believed that breed bans are not effective at preventing aggression in dogs.

No one condoned removal of dogs without permission from the guardian. When asked, each participant stated that most or all dogs in their community had owners. However, no participant mentioned what might be an appropriate way to deal with a dog with no guardian, such as a feral, semi-feral, or abandoned dog.

6.5 Partnership Development

Many participants (all groups) stated that developing or maintaining effective partnerships can be difficult between First Nations and outside groups, particularly in more rural or remote communities. This is in part due to the historical trauma of residential schools and colonialism but more recently the band may have had negative interactions with these groups. Examples provided by participants included judgemental attitudes and stealing of dogs by rescues

(Groups 1, 3, 4, and 5), and broken promises to fix issues (Groups 4 and 5). The themes that emerged regarding best practices for improving these partnerships were relationship development, focus on self-determination of communities, organisational investment in BC SPCA staff, and drawing on partnerships with local RCMP detachments and animal welfare groups.

Developing Relationships

Relationship development received the most attention from each participant group. Emergent sub-themes were trust, context, presence, communication, patience, and connecting with the right people.

Trust

Participants (Groups 1, 3, 4, and 5) stated that some communities have a mistrust of cruelty investigators or animal welfare groups in general. Some (Group 5) had heard community members express that if the BC SPCA is involved then they are not interested in the programming. This said, eight of the nine community members interviewed expressed positive opinions and the work and manner of the BC SPCA or other animal welfare groups, although most of them also expressed a need for a local branch or more support from cruelty investigators.

Suggestions for improving trust included working in collaboration with band leaders, answering questions, not forcing or coercing any changes, sharing knowledge and resources (like dog food donations). One participant (Group 1) stated that sharing natural remedies for minor dog health issues would likely improve trust right away with an individual. Another (Group 2) said that mutual respect is a key part of building a trusting relationship.

Context

Participants from across groups advised that it is crucial to remember the context within the community one is working. Key contextual elements were avoiding biases and relevance of the partnerships to each community. Several Partners pointed out that dogs living outside may still have a good life because they can be well-socialised and free. Some challenged the idea that the outsider or Southern perspective of how to care for a dog is necessarily better:

> If you go into somewhere like an Inuit community and start telling people you can't only feed your dogs twice a week… well you can, look at the dogs, they're totally healthy. They're feeding them walrus fat etcetera, and they're fine! But for us it seems horrible. I find that very occasionally you might find someone who has a really hard time checking their attitudes. (C. Robinson, Group 5)

> Part of it is going in with an open mind. It's not like, oh your dog's not in the house that means you're a bad dog owner. You know? Having these preconceived notions that this is the only way that a dog is happy. Because, man, when we take those dogs that have lived for years outside and we bring them and try to acclimate them into our "normal" houses, they're so stressed! It takes them weeks to even want to come in the house. (Willow, Group 3)

It may be difficult for an external service provider to see dogs living in distress because the South's relationship with dogs tends to look different. Most of the Partners stressed that it

important to have an open mind or not judge. Many who had led teams of outsiders stated that it is important for the group to be conscious of their biases before they go into a community.

> You look around and the dogs sometimes look derelict, skinny, not neutered, live outside, etcetera. But I can tell you that every single place I go I meet so many people that love their animals. It's just a different culture. . . When you're working within a culture that's different than yours, don't judge them by what you think should be done. We may think that that dog's going to have a better life living on a couch, that's what my dogs do! They sleep in my bed, get all the vet stuff and vaccines and stuff. It doesn't mean that those other people don't love their dogs just as much as I love mine. It's just different. (C. Robinson, Group 5)

According to the participants, partnerships and programming must also be relevant to each community. Many of the Partners said they had had more success after working with communities to define the problems before planning any programs. Certain things may have been tried already, and it is important to know what a community's goals are. They may want to work on improving animal welfare or public safety, rather than reducing dog population. Listening carefully to the community members was thought to be the best way to align goals. If a community does not want to form a partnership with an organisation, then it is not the organisation's place to convince them otherwise.

Another contextual element that emerged was individualism. Many participants from a range of groups stressed that each community must be treated individually just as each person or dog must be treated as an individual. Circumstances range greatly from place to place, not always dependent upon rurality or resource access. Jamie (Group 4) suggested to "reach out to Chief and Council and see how they would like to develop a partnership. Ask. What and why is animal welfare important to them? It can be different for each community."

Of the Partners, seven of eight participants mentioned in some way that each community had a different situation and different goals. None of the First Nations Group made mention of this, although Group 1's interview questions were designed to gather information about each participant's own community.

It was suggested that combining traditional beliefs (such as myth, ceremony, ritual, or plant-based medicines) with modern population management strategies could deepen relevance to a community while also serving as a positive relationship-building activity (Groups 1 and 4).

Presence

Participants from every group advised that it helps when would-be partners visit communities and get to know people before there is a problem. Ideas included introducing oneself to leaders and elders, asking to be present at chief and council meetings (or the larger-scale tribal council meetings), arranging workshops to explain to communities what the organisation does, and attending community events. One participant suggested visitors bring their dogs when visiting. There was an emphasis on being friendly and positive, to show the community that the organisation is not there to take dogs away, as illustrated by one participant:

> Show up. Oftentimes there's events in the community where there's a powwow, a feast, opening of a new school, they're open to the public. You don't have to be there on SPCA business. You can be there on First Nations business. Just being respectful. Get to know people. Get out of your vehicles. (Participant 2-1)

Being on the ground was also said to be a good way to find out what is going on in the community. One veterinarian participant stated that the community has no way of knowing that she is competent and not just practicing her surgical skills on their dogs.

Beyond physical presence in a community, participants also stressed the importance of mental presence: respect, genuine caring, and undivided attention when interacting with community members. This involves fully living whatever conversation you are having with the person, and with an open mind.

Effective Communication

A participant from Group 4 described a time when she and a community member were able to alleviate conflict brought on by differences of opinion, simply by finding common ground. The stories she told illustrated her belief that people do not have to agree about everything to work together toward a common goal.

Many participants from across groups mentioned the importance of honesty and open communication, especially if a community has had negative interactions with animal welfare groups before. Some recommended that staff be up front about what they can and cannot do, without making promises to fix problems.

Specific communication techniques were discussed as well. A bylaw officer suggested that instead of telling someone they are doing something wrong, he has found it helpful to refer to specific laws or bylaws that were broken. This may avoid the perception of judgement. Another participant shared that she has had success engaging community members who were less interested in animal welfare by explaining that by helping animals, we help people and their lands at the same time.

Patience

Patience came up in almost every interview. A common theme was that adaptive, sustainable change takes time, even several years of clinics or relationship building. Alongside this was a theme of persistence: assume there will be setbacks, and accept it. Many participants had seen an end result that was worth the time and work they had put into their partnerships. It was said to be useful to have both short and long-term goals, and to go slow, building on small changes.

Connecting with the Right People

Many of the First Nations Group stated that having a community liaison may be helpful in initiating new relationships with communities. This person would be a trusted person to vouch for you, would know where the dogs are, and could translate as needed. They also recommended going straight to the Band Office, rather than walking around a community without an invitation. Connect with leaders, elders, youth, and community members who care about or care for animals. It was mentioned that there is sometimes a sense of shame associated with liking or looking after dogs, so discretion may be warranted in forming relationships with individuals who believe that there is a problem with dog welfare in a community.

It was acknowledged that while a working relationship with administration may be a good prerequisite to a partnership, this can be more complicated under the Indian Act's Elected Chief and Band Council System, because elections occur frequently and leadership may change every few years.

Autonomy and Self-determination

Another major theme that emerged was community autonomy. The Partners were clear in that their ultimate goal was to step back and allow a community to manage its dog welfare and populations independently. But, part of the value of partnerships was thought to be that organisations would be there for support. People from across groups advised finding a person in the community who is interested in taking the lead on spay/neuter clinics or being a point-person for the rest of the community when an issue comes up. One participant in Group 1 had access to a police scanner so he could personally respond to police incidents, such as car accidents, to help any animals involved.

A participant from Group 2 suggested highlighting Indigenous organisations that have seen success in improving the lives of dogs. He said examples are helpful, and knowing what has worked elsewhere might help inspire members.

Many of the Partners advised avoiding providing services for free. While they acknowledged that community members often cannot pay market rate for spay/neuter, they may be able to pay a reduced amount or make a trade. Examples of trades were handmade slippers, fish, and driving to town to bring back supplies.

Invest in Staff

Each group made some mention of the importance of taking care when selecting people who would enter into First Nations communities, or investing in current staff. People should be adequately prepared and value respect and diversity. Understanding the context and doing some research about the band you want to partner with is important, but the necessary groundwork goes beyond cultural competency. It was recommended that team members be made aware that they may experience trauma and the feelings that go along with that. They should also know that they may be met with resistance or criticism, and must not take it personally. De-escalation training might be useful. It was also advised that diversity from within the organisation might be appropriate, even better if there is an Indigenous voice.

According to the Partners, teams should also be adequately informed about relevant laws, know their place, their role, their objectives, their capacity, and their limitations. A bylaw officer warned that people in his role be selected very carefully. In addition to the above measures, bylaw officers should have life experience, some understanding about basic veterinary medicine, a passion for animals and people (rather than power), and motivation to form positive relationships with communities.

Partner with Local Rescues and RCMP

Participants from Groups 2 and 4 suggested that in addition to partnering with leaders in the community, staff take advantage of partnership opportunities with animal rescues and local RCMP detachments and animal rescues. Rescues may also have an existing relationship with the band, and might be willing to help out with supplies, labour, or other resources during population management activities.

BC SPCA can help educate RCMP about animal cruelty laws they can enforce under the Criminal Code and Prevention of Cruelty to Animals Act. RCMP detachments are also generally familiar with local communities and their unique situations.

However, one participant (Group 4) pointed out that in certain circumstances, RCMP intervention may in fact detract from a community's capacity to self-govern by delaying development or implementation of animal control bylaws. When communities rely on RCMP to respond to certain types of animal-related calls that could be dealt with by a local bylaw officer, they may choose not to invest in bylaw development.

6.6 Summary

Primary data confirmed that many First Nations communities in BC are experiencing issues associated with dog overpopulation and welfare, despite the number and roaming status of dogs varying from place to place. There were few remarkable differences between participant groups regarding problem definitions, contributing factors, and best practices for building partnerships between communities and the BC SPCA.

Specific dog welfare concerns varied between communities but often included neglect, starvation, reproductive-related concerns, or culling. Public welfare and safety concerns included aggression and attacks, harassing of children, and exposure to trauma (including the psychological effects of culls).

Findings revealed contributing factors to be complex and opinions were highly variable. Major factors included poverty, historical trauma and colonial interference, cultural determinants, physical isolation, and lack of access to resources. The Partners Group went into depth discussing specific dog management strategies and their relative effectiveness in different communities, including reproductive control, removal and rehoming, humane education, animal control bylaws, community development, culling, and breed bans. Participants were generally in agreement that culls are ineffective at stabilising dog populations.

Relationship-building between communities and outside agencies was ubiquitously seen as an important step in sustainable dog welfare and population management across the province, particularly in rural or remote communities. Important components of relationship-building were found to be trust, attention to context, presence, effective communication, patience, and connecting with the right people. Other key considerations in partnerships were community autonomy and self-determination, investment in organisation staff and volunteers, and utilising assistance from local animal rescues and RCMP detachments.

7. DISCUSSION

This section compares findings from the interviews with those in the literature review, assesses the extent to which research questions were adequately addressed, introduces the issue as a complex adaptive system, and considers ethical questions that arose through conduction of both the literature review and primary data collection.

7.1 Research Questions Revisited

This project aimed to determine best practice guidelines for the BC SPCA in partnering with BC First Nations to address self-identified issues related to domestic dog welfare or overpopulation.

Sub-questions included:

1. *What factors are contributing to the domestic dog crisis in some First Nations communities in BC?*
2. *Which strategies and tools are effective at increasing the quality of life and controlling the population of dogs in First Nations communities that identify as having these issues?*

Participants agreed that dogs or domesticated wolves have been a part of BC First Nations way of life for hundreds, if not thousands, of years. A recent lab test confirmed a Coast Salish blanket had been woven from the hair of a breed of dog that has been extinct for about 150 years (Luymes, 2017). However, one participant also pointed out that European settlers brought different breeds of dogs to North America, contributing to and changing the relationship between canines and some First Peoples. Clearly, the history is variable, complex, and lengthy. While acknowledging the importance of context in considering dog issues, one would do well to also have a healthy respect for the countless unknowables within that same context. In essence, the project's findings suggest that issues with dog welfare are occurring in many communities across BC for complex reasons and with contributing factors that vary greatly from place to place.

There is agreement for the most part on which dog population and welfare strategies utilised by partnerships have been or would be most successful, although positions varied on how best to conduct population control programs (for example, whether to remove and adopt, spay, spay/neuter, or implant contraceptives). Best practice appears to be a combination of population control programming and humane education, with an emphasis on change sustainability. Sustainability is best achieved by supporting a community in achieving its goals, rather than intervening without first taking the time to develop a relationship. Support may come in the form of community development and/or assistance developing effective animal control (or responsibility) bylaws.

Regardless of the particular methods employed, interview data strongly suggests that careful development of the partnership itself should be a focus of any initiative. Better partnerships will therefore likely lead to better outcomes.

The literature review contextualised future partnerships by exploring the role that partners might serve in addressing issues with free-roaming dogs, and how others have attempted to or successfully worked toward solutions. Primary data collection was a necessary step in incorporating diverse perspectives and experiences, and most importantly, consulting with community members on what they believe would be best practices for the BC SPCA in approaching a partnership with their community or other First Nations.

This project identified contributing factors in dog health and overpopulation issues in some BC First Nations communities. These factors are complex and unique to a community but in many cases revolve around trauma, poverty, and isolation. However, this data was collected almost entirely from individuals who saw a need for change, and from communities who had an existing partnership with an animal welfare organisation. Random sampling from each community might yield different results. Findings might also differ significantly across the province, and future research should seek perspectives from a greater number of communities, with a range of historical contexts, levels of resource access and isolation, and partnerships with outside agencies. Published works on this topic were scarce.

7.2 Dog Welfare and Population Control Methods and Strategies

The conceptual framework (Figure 2) allowed for a comprehensive literature review of a variety of existing strategies for addressing dog welfare and overpopulation issues in communities, which was complemented well by primary data. Although there have been no peer-reviewed studies examining the relative efficacy of dog welfare and population control strategies in First Nations communities, participants' opinions and experience did tend to agree with the available literature. With this information, useful recommendations for specific strategies can be put forth toward developing the Toolkit.

Dog Population Management: Culls and Fertility Control

Culls have been an acceptable short-term solution to dog overpopulation or health issues in many of BC's First Nations communities for hundreds of years, and oftentimes is the only way to immediately control a dangerous situation. However, every participant who mentioned culling either expressed that they believed it was wrong, damaging to the community, or an ineffective long-term strategy. This data was congruent with research about the effectiveness and public perception of culls in Indonesia (Hiby, 2013), Brazil (Nunes et al., 2008), and Mexico (Ortega-Pacheco & Jiménez-Coello, 2011; Ruiz-Izaguirre, 2013).

CNR was found by researchers to hold great potential as a tool when used in combination with other methods (Hiby, 2013) and with community involvement (Jackman & Rowan, 2007). Likewise, participants stressed that spay/neuter clinics are an effective and humane tool, but only with an education component, community engagement, and a lot of time and work.

Research has shown that nonsurgical fertility control has great potential as a tool to control populations of free-roaming dogs (Massei & Miller, 2013) and wildlife (Jackman & Rowan, 2007; Turner & Kirkpatrick, 2002; Rutberg, 2013), although there is a research gap regarding use of these methods in free-roaming dog populations in Canada. Participant 5-3 posed arguments for contraceptive implant and spay programs over spay/neuter clinics that were backed by extensive first-hand experience. She argued that in a free-roaming dog population, females in heat are easily impregnated, even with very few fertile males. Each fertile female can have multiple litters per year. Therefore, in order to control the number of puppies produced by a population, it makes more sense to spay the females unless you are able to sterilise all or almost all of the males. She argued that accessing all males is unlikely because dominant (breeding) males tend to be aggressive or difficult to catch. Therefore, aiming to spay as many females as possible is a better use of resources during a clinic (see Foundation for Animal Wellness Initiatives [FAWI] [2014] for information on the Dogs With No Names contraceptive implant project). Participant 5-3 further stated that rather than simply spaying young females,

which may put them at great medical risk during recovery, it is more humane, more cost-effective, and less labour-intensive to use contraceptive implants.

Figure 4 presents the arguments for and against spay/neuter programs compared with spay-only (or contraceptive implant) programs.

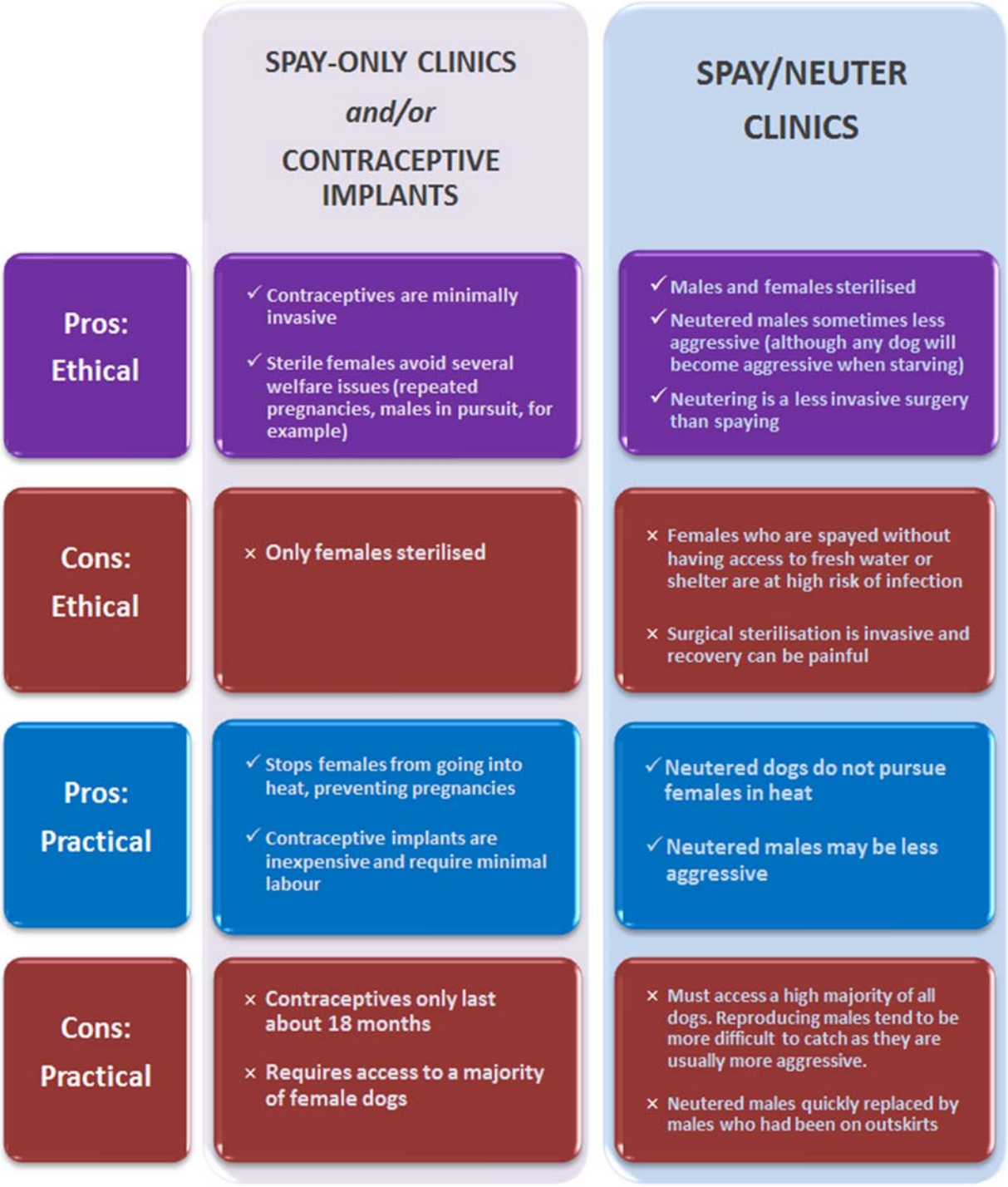

Figure 4. Spay-Only Clinics and Contraceptive Implants vs. Spay/neuter

While neutered males may experience some welfare gains over intact males (e.g. less aggression), the benefits of sterilisation to females appear to be relatively greater. According to the data, if a program team is forced with the decision to either neuter a male or spay a female, it should spay the female to minimize unwanted litters and maximise animal welfare benefits overall. Thus, it would seem that the greatest impact to a community may be achieved by focusing on sterilising female dogs—while also providing needed veterinary intervention to free-roaming males whenever possible.

However, despite these compelling arguments, it is important to note that the Dogs With No Names project has aimed much of its intervention at unwanted (stray) dogs, whereas the majority of dogs discussed by First Nations participants in this report have had guardians. Before a partnership determines the best course of action for addressing dog issues, it is therefore even more crucial for the partnership to define the problem that the community wants to solve. If, for instance, the problem is said to be widespread neglect, then a partnership may decide to treat as many dogs and speak to as many community members as possible while an intervention is taking place, regardless of resource expenditure. In such a case it would not be logical to limit sterilisation only to female dogs. If, on the other hand, the problem is simply too many stray dogs, and/or veterinary resources are limited, then the wise course of action would be to safely capture and sterilise as many females as possible.

Human-based Strategies: Humane Education and Bylaw Development

Participant attitudes toward humane education were entirely positive, although most had not had personal experience with humane education in schools. Effective education in communities tended to be described by participants as more spontaneous and casual, occurring as part of relationship-building or welfare/population management activities. Further research is needed to explore the longer-term effects of partnerships that provide humane education in First Nations schools or communities. Likewise, participants tended to strongly favour the introduction or enforcement of animal control bylaws, but at this time there is no research available affirming this prevalent assumption.

Community-based Strategies: Community Development and Partnerships

Several participants stated in some way that human and dog welfare should be approached as a singular goal, and experts tended to view this as an emerging trend among rescue organisations. Researchers from a variety of fields of study have also argued for an integration of human, animal, and ecological well-being—“One Health”—and the imperative for a more holistic approach than fixating only on animal health (American Veterinary Medical Association, 2008, Arluke & Atema, 2015; McCrindle, 1998).

Participants shared a diverse array of strategies to form and reinforce partnerships between First Nations communities and the BC SPCA. Like Hiby (2013), participants were in favour of partners collaborating to explore problems and make plans before jumping to action. Participants stressed the importance of focusing on the quality of the relationship between the community and animal welfare organisations above all else. In order to achieve this quality relationship, participants emphasised effective community consultation and engagement. Community consultation, and participatory strategies were likewise established through the literature as being effective catalysts of change (Schurer et al., 2014; Schurer et al., 2015).

Another key element of positive partnership-building is attention to context. During primary data collection, the importance of context was brought up often. Regarding dogs in First Nations communities, relevant contextual elements include a community's history, culture, and unique circumstances. Primary data demonstrated that BC First Nations communities care about their dogs, but that the relationship between these dogs and their people looks different than it does in Canadian urban centres. According to participants, outsiders entering into or working with a First Nations community should be conscious of contextual elements and possess the ability to withhold judgement. Related research agreed that context is important, but tended to be more concerned with causes of free-roaming dog issues or barriers to success (Constable, Dixon, & Dixon, 2010; Laugrand & Oosten, 2002; Riche, 2013; Riche, 2015).

7.3 Complexity and Leverage Points

One might think of dog welfare and overpopulation as a complex adaptive system. Complex adaptive systems are networks (such as communities) of many agents (people, dogs, organisations, society as a whole) which each behave independently and according to their own choices or rules (Stacey, Griffin, & Shaw, 2000). Individual rules may be determined by many things: relationships between people, dog-human relationships, personal or cultural beliefs, and so on. No agent alone determines behaviour patterns within the system—rather, it is the interactions between agents according to their individual rules that causes the complex adaptive system to both sustain itself and to evolve and change. Adaptations occur in response to complex behaviour patterns from agents inside the system (e.g. a change in leadership, access to new resources) but also from outside interactions (e.g. partnerships, colonialism, environmental disasters, technology). In this way, a system is fluid and its boundaries are blurred and ever-changing.

In the complex adaptive system of dog welfare and overpopulation in a given community, many diverse factors interact to weave an emergent, adaptive state for the community and its dogs. This is one way of appreciating the complexity of the issues and acknowledging that there are likely contributing and perpetuating factors that we cannot understand through research or other means. This makes it difficult to determine best practices in any given community.

Thinking about the issues in this way provides insight into why some interventions might not be working. The Partners Group was adamant that population or welfare management efforts (including bylaws) often fail to alleviate problems long-term because they do not address root causes, include elements of humane education, or do not engage the community enough in the process. Because of the adaptive and persistent nature of complex systems, interventions likely need to address multiple parts of the system in order to be sustainable. Positive, sustainable change (ideally, independent dog welfare management within a community) may not be possible if only a single element of the system is altered (such as an immediate reduction of breeding dogs through a cull or spay/neuter clinic) or if programming or partnerships are not approached in a deliberate way.

So, in light of the complexity of the system, what are best practices for a partnership to achieve positive, sustainable change? Donella Meadows' (1999) paper about places to intervene in a complex system for sustainable change lists several "leverage points" at which change efforts are more likely to be successful. Meadows describes leverage points as "places within a complex system (a corporation, an economy, a city, an ecosystem) where a small shift in one thing can produce big changes in everything" (p. 1).

Although there are many leverage points in the complex adaptive system of dog welfare and overpopulation, two leverage points are discussed in this section: feedback loops and paradigm shifts.

A positive feedback loop in systems change is a self-reinforcing structure of inputs, which lead to outcomes, which in turn lead to greater inputs (Meadows, 1999). Feedback loops can be found within successful partnerships between First Nations (individual people or whole communities) and outsiders (individuals, teams, or whole organisations). In this case, partnerships (inputs) lead to greater quality of life for humans and dogs (outputs) which in turn lead to more partnerships developing and each individual partnership deepening. Greater trust of outside groups might lead to more positive relationships between the community and its local RCMP detachment or nearby municipalities. New partnerships may form as a result of word-of-mouth from one community to another, or from a successful program resulting in increased funding for an organisation to seek new partnerships. Positive change for dogs and people feels good to those involved, driving the inclination to produce further change or initiate new partnerships for those who witness change elsewhere. The sum of small (even seemingly insignificant) events that occur through adding this new positive feedback loop can ultimately change the system's structure (Meadows, 1999). Regardless of the way it happens, relationship development itself leads to positive changes for those involved (Figure 5).

Figure 5. Positive Feedback Loop

A second leverage point is the paradigm from which the system itself arose (Meadows, 1999). In the case of free-roaming dog overpopulation and welfare issues in some First Nations communities, the system appears to have arisen from the obstacles that are faced by people in many of the communities: higher rates of illness, poverty, addiction, unemployment, and family violence, to name a few (Royal Commission on Aboriginal Peoples, 1996). By utilising partnership resources to limit one or more of these variables, a partnership can change this precipitating paradigm of multiple barriers from the inside out. This can be accomplished through community development activities, community health initiatives, humane education, and many other ways. For example, there are well established correlations between domestic violence and animal abuse (Volant, Johnson, Gullone, & Coleman, 2008). In fact, one study found that children exposed to domestic violence were more likely to mistreat animals (Hartman, Hageman, Williams, St. Mary, & Ascione, 2016). In learning about this link, children and adults may have more power to break cycles in their own lives, reducing violence and improving the lives of a community's people and dogs. Further research might investigate whether violence prevention in schools has an impact on animal abuse or neglect incidence, or whether humane

education programming can reduce familial violence rates along with improved treatment of animals.

7.4 Ethical Considerations

There is a research gap regarding ethical considerations when studying free-roaming dogs, although findings did support the assertion that the Toolkit should be produced through a historically sensitive and culturally-informed lens. A five-year study in the Yukon concluded that the lingering effects of colonisation continue to degrade the First Nations relationships with animals, shifting attitudes away from animals as sacred beings and toward animals as resources (Nadasdy, 2004). Nadasdy's conclusions aligned well with statements from this study's participants, who frequently advised that relationships between dogs and people have deteriorated from interdependence to something yet undefined, but often not adaptive for either party. Participants agreed that dogs once held a higher status due to their utility, but are no longer a mandatory part of community survival.

Nocella (2012) discussed the overrepresentation of "whiteness", or people of mainstream culture, within the animal advocacy movement. He found that the majority of both Canadian and American members of the animal rights movement identify as "Caucasian". According to the author, this issue is important because animal activists run the risk of neglecting the role that racial justice plays in the system of animal rights and welfare. Animal cruelty and neglect are outcomes and symptoms of social injustice, much like the complex roots of racism. Thus, he argued, animal advocacy and activism are most effective when approached intersectionally—with acknowledgement of the multiple intersecting oppressive institutions at play. These factors might include colonialism, racism, poverty, or speciesism (the belief that humans are superior to other beings). Nocella uses himself—a queer male with disabilities—as an example of intersectionality in practice. Despite experiencing the oppressive systems of homophobia and ableism, he is also a white, educated, human male, allowing him certain privileges that other groups cannot access, recognising that his actions from a place of privilege may affect those who face other oppressive systems.

Nocella's (2012) suggested intersectionalist approach to animal advocacy involves acting through multiple movements. He seeks to apply Crenshaw's (1989) concept that different categories of identity (such as class, race, gender, or even species) behave as axes that interact on multiple levels to contribute to oppression. Nocella agreed with Crenshaw that our current classifications of oppression (speciesism, racism) do not exist independently. Nocella argued that animal advocates should work in solidarity with other advocates focused on ending oppressive systems, toward justice for all groups, both human and non-human.

Individuals, organisations, and community members must understand not only the historical and cultural context of the dog welfare issues, but also their own privileges and how these may affect other partners and the relationship itself. One might speculate on the reasons that no participants from the First Nations group mentioned colonialism or residential schools. It could be that they do not believe colonialism was a factor leading to the present-day dog situation, or it could be that these participants were not comfortable discussing colonialism on the record with a relative stranger who also happens to be white. It would certainly be understandable if this were the case. So, in recognising one's own oppressions and privileges, as well as any that might be faced by others in a partnership, one may gain a better understanding of the forces that led to a given situation, as well as how best to avoid barriers to change. For example, a

community in the midst of a teen suicide or addiction crisis is less likely to have the physical and psychological resources to sterilise and build fences for its dogs, but through effective partnerships improving human welfare, animal-related goals may be indirectly achieved as well.

In this vein, one might question the extent to which dog welfare and human welfare are mutually exclusive, and how the BC SPCA, researchers, and society might best navigate this uncertainty. Published ethicists and medical researchers have agreed that animal and human welfare are connected, arguing that adequate public health will never be achieved while society continues to disregard animal well-being (Akhtar, 2012; Akhtar, 2013; Molento, 2014; Rock, Adams, Degeling, Massolo & McCormack, 2015). Akhtar (2012) cited examples where humans risked their lives to save pets, and where animals that were mistreated later injured or killed a human, and explored the negative ecological impact of the worldwide meat trade. Dalla Villa et al. (2010), using questionnaire data, found a negative correlation between the United Nation's Human Development Index and the intensity of free-roaming dog public safety issues, specifically bite injuries and zoonosis transmission.

A sufficient discussion of animal rights as they interfere with human rights is beyond the scope of this report, but interview findings suggest a prevalent belief of a link between human quality of life and dog welfare in First Nations communities. In other words, if people are in a better situation, so are their dogs, and one cannot be considered without the other.

7.5 Summary

This section discussed the data in the context of the research questions and literature review, and explored emergent themes. Dog overpopulation and welfare issues in BC First Nations communities were found to be complex variable, and difficult to define. Preferred strategies and interventions were organised into groups and examined in turn: dog population management, human-based strategies, and community-based strategies. Each type of strategy was found to have its own benefits and drawbacks, but best practices depend on the problem as defined by the community. Regardless of strategy choice, development of the partnership itself should be a primary goal.

This section explored dog welfare and overpopulation as a complex adaptive system, composed of a network of independent actors that interact to form and perpetuate adaptive patterns that may not lead to positive outcomes for dogs. Considering the issues in this way allows one to utilise certain leverage points from within the system to enact sustainable change. Two examples of leverage points were discussed: introduction of effective partnerships into a positive feedback loop that results in a greater inclination to partner, and changing the paradigm from which the system of dog welfare issues likely arose—higher rates of poverty, illness, addiction, unemployment, and so on.

Finally, the discussion moves to ethical considerations. Historical and cultural sensitivity are critical in development and application of the Toolkit due to the ongoing effects of colonialism in BC and Canada. It is also important for partners to recognise their own privileges and how these may affect the way they think about issues and interact with other partners. In part, by considering the over-representation of "whiteness" in animal advocacy (as discussed by Nocella, 2012), individuals, groups, and communities can form better partnerships, and work toward ending oppressive systems that affect quality of life of both people and animals.

8. RECOMMENDATIONS

This project aimed to determine best practices in partnering with interested First Nations communities to address dog welfare and overpopulation issues. Findings showed that root causes of dog issues in these communities are difficult to determine due to the complexity of contributing factors. However, findings also indicated that certain activities have been successful in different communities, depending on problem definition as determined by the community. Although published research on dogs in First Nations communities is scarce, the results of this project mirror much of the available literature on free-roaming dog populations in other jurisdictions.

BC SPCA staff have indicated that a Toolkit for partnering with communities would help to address dog issues. This is a step toward meeting a goal from its current strategic plan, "[inspiring] society to create humane communities (BC SPCA, 2013, p. 6). Findings from the literature review and primary data point to five recommendations. The purpose of the recommendations is to assist the BC SPCA in helping develop humane communities, where animals are provided freedom from hunger, thirst, pain, injury, disease, distress, discomfort, and given freedom to express normal behaviours (BC SCPA, 2013).

The recommendations are organised in the order in which they should be approached:

Recommendation 1: Present Findings

Present findings to the BC SPCA Board of Directors, senior officers and management, and staff currently involved in outreach activities in First Nations communities (including Cruelty Investigations Team)

Recommendation 2: Develop the Toolkit

The researcher will develop the Toolkit for Building Humane Community Partnerships for distribution to staff, volunteers, communities, and other animal welfare groups. The Toolkit should be made available to any interested communities, and all BC SPCA staff or volunteers providing community outreach. It should be introduced more formally to at least the following teams: Outreach, Strategy and Innovation, Cruelty Investigations, and Humane Education—if/when presenting in First Nations communities. Because the Toolkit may be of use to a broad range of programs within the organisation, it should determine which team to best take the lead on overseeing its development and distribution.

Any community or person who identifies as First Nations and wishes to contribute to the Toolkit is encouraged to contact the writer directly. Possible contributions include (but are not limited to) quotes, stories, suggested resources for additional information, photographs/graphics, layout, level of detail, and exercises.

The Toolkit is expected to be developed by early 2018. There will be a digital copy to be distributed electronically (or available online if feasible), with hard-copies to be produced by the organisation as required.

The Toolkit should include the following sections:

- **Introduction:** Briefly outlines the purpose of the Toolkit, provides an overview of any statistics available, and introduces cultural and historical factors that may have contributed to a dog welfare or overpopulation crisis in different First Nations

communities, without identifying any specific communities. Special attention should be given to describing the relative effects of rurality and access to specific resources or resource types on a community's dog situation.

- **Dog Welfare and Population Management:** Outlines best practices for dog welfare and population management in First Nations communities. Briefly discusses the relative strengths and drawbacks of different strategies according to this project and previous research.
- **Partnership Building:** Discusses the importance of relationship development and other elements found to be important in building partnerships between organisations (or individuals) and First Nations communities (or individual community members). Describes best practices as deduced through this project. Acknowledges that care must be given in selecting and preparing team members.
- **Bylaws:** A section about animal control (or responsibility) bylaw development and enforcement. It should include a copy of (or link to) the BC SPCA's (2017b) Model Animal Responsibility Bylaw for communities to use for guidance if they would like to update or write new bylaws. It includes sample bylaws about aggressive dogs, chained dogs, pets in hot cars, licensing and registration, ownership and sale of animals, kennel licensing, and others. It may also include suggestions for implementing and enforcing bylaws effectively, and a brief write-up about potential benefits of implementing a Bylaw Officer position within the band, including a sample job description.
- **Humane Education:** Suggestions for conducting education activities specifically in First Nations communities. It might list suggestions from people who have conducted activities in communities, including material to include in lesson plans. It might also include a discussion about "casual" humane education topics to introduce with partners while visiting the community or conducting dog population or welfare management activities.
- **Community Development:** An introduction to the complexity of dog welfare issues specific to First Nations communities and the factors that may be in play, including cultural factors, historical factors, and physical factors such as resource access. This section should also include a presentation of the advantages of community collaboration, collective action, inclusion, holistic attention to the community as a system.
- **Exercises:** Activities that partners can work through together to determine goals and build their relationship. Possible exercises include:
    - an icebreaker or introductory activity for partners to get to know one another and start to build trust;
    - a worksheet to see how partners' goals align and to initiate discussions about any concerns;
    - a problem-definition activity (to determine the exact problem that the community wants to solve through the partnership);
    - an assessment tool for identifying assets, strengths, resources, and potential places to intervene for greatest impact (leverage points); or

        - ➢ an evaluation tool to be utilised at any point in the process to both track progress and celebrate successes.
    - **Troubleshooting or FAQ:** Possible questions include...
        - ➢ Who to call when there is an obstacle?
        - ➢ What to do if you see abuse or neglect?
        - ➢ What happens if trust is breaking down?
        - ➢ Tips to take care of yourself during outreach or population management activities.
    - **A Networking List** providing contact information for organisations and communities that have formed successful partnerships, with the permission of each community and organisation.
    - **Statistics** if available. Relevant statistics should be employed *if they enhance the utility of the resource*. It is recognised that too many statistics could diminish the accessibility of the Toolkit.
    - **Positive visuals,** such as photographs or graphics, throughout the Toolkit whenever appropriate.
    - **References** for all scientific information and quotations.

Recommendation 3: Train Staff

Context, open-mindedness, and cultural relevance were identified in primary data analysis as important factors in building trust and developing partnerships. Train staff and volunteers on:

- best practices for partnering with First Nations or Indigenous communities;
- cultural competency (traditional beliefs and practices, understanding the impact of trauma and Canada's colonialist history, etc.); and
- conflict resolution and de-escalation.

Recommendation 4: Utilise an Indigenous Liaison

Budget for and hire an Indigenous Liaison as part of the Society's outreach team, OR organise a network of Indigenous volunteers to assist in partnership development and outreach.

Option for Consideration

This project concluded that contraceptive implantation programming holds great potential as a tool for dog population and welfare management in communities. It is inexpensive, minimally invasive, and community members might someday be able to administer the implants themselves. Because this is a relatively new technology, it is not in regular use across Canada at this time, and there is a significant lack of scientific research on the use of contraceptive implants in free-roaming dog populations.

The BC SPCA may wish to perform a feasibility study for an organisation-led initiative for the use of contraceptive implants in helping control dog populations, in partnership with interested First Nations and other animal welfare organisations. Work of this nature has been successful in

parts of Alberta (FAWI, 2014), suggesting promise in BC as well. The study may involve the following tasks:

1. Perform a budgetary analysis to see if resources for the study can be made available.
2. Identify partners: interested communities and local animal welfare organisations with the capacity to perform outreach activities that include veterinary treatments (contraceptive implants, vaccination, microchip, and surgical spay).
3. Facilitate a series of meetings within a community to establish a plan that is relevant to all parties, in congruence with the Toolkit.
4. Implant contraceptives in as many healthy female dogs as possible in a community (or a segment in the community). Perform any adjunct treatments, including vaccination and microchip implantation.
5. Return at regular intervals to collect data on dogs (total population, survival rate, body weight, and so on) and talk to community members about their opinions and observations.
6. Encourage community investment and participation whenever possible at every stage of the process.
7. Allow communities to re-establish autonomy as soon as possible by supporting them in accessing services independently (e.g. a band hiring a veterinarian to visit the community to sterilise and treat dogs as needed).

9. CONCLUSION

By working together we can improve the quality of life of BC's free-roaming dogs and their people. Although barriers to successful partnerships between animal welfare groups and communities can be complex, this project presents best practices for a variety of stakeholders in coming together to work toward common goals.

This project was completed for the British Columbia Society for the Prevention of Cruelty to Animals. Objectives stemmed from the organisation's explicit intent to form working partnerships with First Nations across BC to improve the welfare of animals. Many First Nations have expressed to the BC SPCA that they are experiencing dog welfare or overpopulation crises they want to change. The project, by way of interviews with knowledgeable individuals and a literature review, aimed to determine best practice guidelines for developing partnerships between the BC SPCA and BC First Nations communities. These guidelines are intended to inform a Toolkit.

Under the assumption that understanding root causes of the dog issues would lead to more informed recommendations, this project examined the factors that may be contributing to the dog crisis. It also explored the strategies and tools that have been used or might be used in addressing the issues, both from a peer-reviewed research perspective and through interviews of a variety of stakeholders.

Consultation with existing partnerships and consideration of published literature revealed the importance of context, patience, respect, and special attention to the goals of the community. Outside groups would do well to understand the history of First Nations Peoples, the individual community's culture and previous interactions with outside groups, and to take great care with communicating respect at all times. Change can only happen for these dogs through their people.

Best practices for dog population and welfare management strategies and tools differ depending on the goals of the community, access to resources, and other variables, but it became clear that culls do not provide sustainable population management. This is not a new concept, but some communities are still having to resort to dog culls. There are effective and humane alternatives to culling, many of which were explored in this report. Particular attention was given to the potential impact of contraceptive implantation as a cost-effective and minimally invasive alternative to traditional spay/neuter clinics.

Based on the project's literature review, primary research, and discussion, it is recommended that the BC SPCA develop a Toolkit that includes best practices for relationship development between the organisation and communities and the variety of dog population control tools, and information about context and the relative effects of resource access and rurality. It is also recommended that the BC SPCA invest in their capacity to partner with First Nations communities through training of existing staff on relevant topics identified in the report, and hiring an Indigenous Liaison (or organising a network of Indigenous volunteers) to assist in partnership development.

The BC SPCA may find value in a feasibility study for contraceptive implant programming in interested First Nations communities. Although the organisation does not typically perform dog population management as part of its outreach activities within communities, it does provide funding in the form of spay/neuter grants, performing cruelty investigations BC-wide, and has

strategically planned to work toward humane communities. The BC SPCA, therefore, has a significant interest in advancing knowledge on front-line programming in First Nations communities.

It is now the optimistic hope that the BC SPCA is able to consider these recommendations, and through development and implementation of the Toolkit, improve the lives of many dogs and people.

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APPENDIX A: CONSENT FORM

Working with Communities to Improve the Quality of Life of British Columbia's Free-Roaming Dogs and Their People

You are invited to participate in a study entitled *Working with Communities to Improve the Quality of Life of British Columbia's Free-Roaming Dogs and Their People* that is being conducted by Jennifer Boey and the British Columbia Society for the Prevention of Cruelty to Animals (BC SPCA). Jennifer is a graduate student in the department of Public Administration at the University of Victoria and you may contact her if you have further questions by email at jennboey@gmail.com, or at (604) 805-9376.

As a graduate student, Jennifer is required to conduct research as part of the requirements for a degree in Community Development. It is being conducted under the supervision of Dr. Lynne Siemens. You may contact Jennifer's supervisor at (250) 721-8069. If you would like to speak to the BC SPCA about the project, please contact Geoff Urton at gurton@spca.bc.ca

Purpose and Objectives
The purpose of this research project is to provide an accessible information resource and develop a best practice approach for the BC SPCA in working with a variety of different communities. It will aim to determine guidelines for partnering with BC First Nations communities to address issues related to domestic dog overpopulation that the communities have identified.

Importance of this Research
This research is important because many First Nations communities are reporting a crisis of dog overpopulation, which has led to public health and safety issues as well as animal welfare issues. This project will help the BC SPCA, the organization responsible for welfare of the province's animals, to better partner with diverse communities toward the mutual goal of control of dog populations.

Participants Selection
You are being asked to participate in this study because you live in a community that has identified itself as having issues with dog overpopulation, and/or have expressed an interest in helping to address the problem.

What is Involved
If you consent to voluntarily participate in this research, your participation will include an interview, either in person, over the phone, or by email. The interview will take approximately 40–60 minutes, depending on how detailed you would like your responses to be. Some questions will be about companion dog overpopulation in First Nations communities and others will be used to inform a toolkit designed to guide partnerships between communities and the BC SPCA. With your permission, the interview will be recorded and a transcription will be made. This transcription will be available upon your request, until it is deleted at the end of the study.

Inconvenience
Participation in this study may cause some inconvenience to you, including travel time if you choose an in-person interview, and time taken out of your day to speak with Jennifer. If your Band requires a consultation process, there may be a delay before your interview can take place.

Risks
There are some potential risks to you by participating in this research, including psychological discomfort (such as feeling embarrassed by the questions asked). To deal with this risk, you will be able to "pass" on any question(s) that you do not want to answer.

Benefits
A potential benefit of your participation in this research include a stronger relationship between the BC SPCA and First Nations communities, which may lead eventually to a decrease in dog overpopulation for the community, and happier, healthier dogs. With a greater understanding of the relationship between dogs and humans in different First Nations communities, the BC SPCA may be in a better position to conduct more research or to allocate more funding toward First Nations partnerships. However, the researcher is not able to financially compensate you for your time, nor will your participation increase the likelihood of your being awarded future grant money from the BC SPCA.

Voluntary Participation
Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation. If you do withdraw from the study your data will be used only with your permission. Research participation is voluntary and individuals are under no obligation to participate. BC SPCA services, programs, relationships, or employment (if you are a BC SPCA employee) will not be affected, whether you

choose to participate or not. The client and BC SPCA individuals involved in this study will not be told who chooses to participate and who does not.

Confidentiality
Your confidentiality and the confidentiality of electronic data will be accessible only by password, known only to the primary researcher. Paper copies will be stored in a secure location. Unless consent is given, participants will not be named in the results of the study, nor will any identifying information be disclosed to anyone outside the research team. ***Participants should also be aware that the research team is obligated to report any instances of animal cruelty or neglect that we might see or hear about during the study.***

For members of First Nations communities:

If you are concerned about privacy and would not want others to know about your participation in the study, great care will be taken to protect your and your community's identity. The research team will maintain discretion if entering your community or speaking to other individuals about the project. However, your personal confidentiality may still be limited. It may be possible for individuals or communities to be identified based on identifying information such as access to resources, climate, proximity to cities, or because participating communities have a pre-existing relationship with the BC SPCA or other community organizations. Because of this pre-existing relationship, some knowledgeable individuals, community members, or BC SPCA personnel may be able to learn or guess your identity upon reading the final documents.

If you are okay with having your community to be named or thanked in the research report, but any other member of your community is not, then the community will not be named. You will be given an opportunity to review your interview transcript upon request. Your community's leader(s) will be given the same opportunity but only if you give permission. Your community's leader(s) will be given the option of removing the community, along with your interview, from the study. You will not be identified to anyone outside of the research team unless you consent below to having both yourself and your community named in the study.

Dissemination of Results
It is anticipated that the results of this study will be shared with others in the following ways: within the BC SPCA, project presentation, presentations at scholarly meetings, on the internet, and directly to participants upon request.

Disposal of Data
Data from this study will be disposed upon completion of the study. Electronic data will be erased and paper copies will be shredded.

Contacts
Individuals that may be contacted regarding this study include the researcher and academic supervisor. Contact information is available at the top of this form. In addition, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Human Research Ethics Office at the University of Victoria (250-472-4545 or ethics@uvic.ca).

Your signature below indicates that you understand the above conditions of participation in this study, that you have had the opportunity to have your questions answered by the researchers, and that you consent to participate in this research project. If this form was provided electronically, and you do consent to participate, your email response can be included as an attachment to this form instead of a signature.

_____	_____	_____
Name or participant number	*Signature*	*Date*

Please initial statement only if you consent:

I consent to have my responses attributed to me by name in the results: _____

I consent to have my responses attributed to my community in the results: _____

A copy of this consent will be left with you, and a copy will be taken by the researcher.

APPENDIX B: INTERVIEW QUESTIONS

GROUP 1 – COMMUNITY MEMBERS

About Dogs in Your Community

1. Why, from your perspective, are dogs important to First Nations Peoples?
2. Can you describe the dog situation in your community?
3. Why do you think dogs are an issue in your community, and/or in First Nations communities across BC?
4. Was the situation always like this, and if not, how was it different?
5. What has been done in your community (either by residents or others) to try to control the dog population? For example, spaying and neutering, animal control bylaws, education, capture and adoption, or culling? Which methods were most effective, do you think?
6. What do you think would be an effective and humane way to deal with the issues?
7. Do you feel like your community prioritizes the health and happiness of its dogs? Why or why not? If not, what do you think might help change the community's attitudes?
8. Are dogs in your community kept mostly inside (including only at night), tied outside, or free-roaming outside?
9. Do dogs in your community generally have owners, or are they mainly un-owned?
10. If someone in your community saw a dog suffering, what do you think they would do?

Towards Developing a BC SPCA Toolkit

11. What do you think would be most useful for the BC SPCA to know about partnering with your community?
12. What do you think would be most useful for the BC SPCA to know about partnering with First Nations Peoples in general?
13. What might be a good way for the BC SPCA to build trust with your community?
14. If you had one thing to say to those in charge of animal welfare in BC, what would it be?

About Your Community

(This section will be used to determine how location and access to resources affect each community's needs when addressing dog overpopulation)

15. Do you feel that your community is physically isolated, making it difficult to access important resources (like clean water, affordable food, or healthcare)?
16. Does your community have enough access to…
    - Clean water?
    - Affordable dog food?
    - Animal welfare/humane education?
    - Veterinary care?
    - Trustworthy animal control or bylaw officers?

GROUP 2 – FIRST NATIONS ASSOCIATIONS

About Dogs in the Community

1. Why, from your perspective, are dogs important to First Nations Peoples?
2. Why do you think dogs are an issue in First Nations communities across BC?
3. Was the situation always like this, and if not, how was it different?

4. Which methods of animal population control, in your experience, have been most effective? (For example, spaying and neutering, animal control bylaws, education, capture and adoption, culling, etc)
5. What do you think would the most effective and humane way to deal with the issues?
6. Do you feel that the First Nations Peoples relationship with dogs has changed in the past hundred years or so? Why?

Towards Developing a BC SPCA Toolkit

7. What do you think would be most useful for the BC SPCA to know about partnering with First Nations Peoples (either in a specific community, or in general)?
8. What might be a good way for the BC SPCA to build trust with communities?
9. If you had one thing to say to those in charge of animal welfare in BC, what would it be?
10. Do you believe that social and/or physical isolation has an impact on animal welfare in communities? Howso?

GROUPS 3 AND 4 – ANIMAL WELFARE GROUPS;
ANIMAL CRUELTY INVESTIGATORS
AND BYLAW OFFICERS

About Dogs in the Community

1. Why, from your perspective, are dogs important to First Nations Peoples?
2. Can you describe the dog situation in your area?
3. Why do you think dogs are an issue in your area, and/or in other First Nations communities?
4. Do you know if the situation was always like this, and if not, how was it different?
5. What has been done in your area (either by community members or others) to try to control the dog population? For example, spaying and neutering, animal control bylaws, education, capture and adoption, or culling? Which methods were most effective, do you think?
6. What do you think would be an effective and humane way to deal with the issues?
7. Are dogs in the community you are familiar with kept mostly inside (including only at night), tied outside, or free-roaming outside?
8. Do dogs in this community generally have owners, or are they mainly un-owned?

Towards Developing a BC SPCA Toolkit

9. What do you think would be most useful for the BC SPCA to know about partnering with the community?
10. What do you think would be most useful for the BC SPCA to know about partnering with First Nations Peoples in general?
11. What might be a good way for the BC SPCA to build trust with the community?
12. If you had one thing to say to those in charge of animal welfare in BC, what would it be?
13. Do you believe that social and/or physical isolation has an impact on animal welfare in First Nations communities? Howso?

GROUP 5 – FIELD EXPERTS

Dogs in Aboriginal Communities

1. Why, from your perspective, are dogs important to Aboriginal Peoples?
2. Can you describe the dog overpopulation situation in the areas you conduct your work?

3. Why do you think dog population is an issue in your area, and/or in Aboriginal communities across Canada?
4. Do you know if the situation was always like this, and if not, how was it different?
5. Which methods do you feel are most effective at controlling the population of domestic dogs, and which methods are not?
6. Do you believe that social and/or physical isolation has an impact on animal welfare in Aboriginal communities? Howso?

Towards Developing a BC SPCA Toolkit

7. What are some ways you have worked with community members to change overall community attitudes toward animal welfare?
8. How do you think that the communities you work with feel about animal welfare groups, including animal control bylaw officers and/or cruelty investigators?
9. Can you share a powerful learning experience you had about working with an Aboriginal community?
10. What is some advice you have for the BC SPCA in building trusting, effective relationships with communities?
