Neighbourhood Perspectives on Municipal Environmental Management

by Bronwen Pollock

Bachelor of Arts, University of Victoria, 2017

Project Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Arts

in the
Department of Political Science
Faculty of Arts and Social Sciences

© Bronwen Pollock 2023 SIMON FRASER UNIVERSITY Spring 2023

Copyright in this work is held by the author. Please ensure that any reproduction or re-use is done in accordance with the relevant national copyright legislation.

Declaration of Committee

Name: Bronwen Pollock

Degree: Master of Arts

Title: Neighbourhood Perspectives on Municipal

Environmental Management

Committee: Chair: Anil Hira

Professor, Political Science

Laurent Dobuzinskis

Supervisor

Associate Professor, Political Science

Brenda MorrisonCommittee Member

Associate Professor, Criminology

Annika Airas Examiner

Term Lecturer, Urban Studies

Ethics Statement

The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

a. human research ethics approval from the Simon Fraser University Office of Research Ethics

or

b. advance approval of the animal care protocol from the University Animal Care Committee of Simon Fraser University

or has conducted the research

c. as a co-investigator, collaborator, or research assistant in a research project approved in advance.

A copy of the approval letter has been filed with the Theses Office of the University Library at the time of submission of this thesis or project.

The original application for approval and letter of approval are filed with the relevant offices. Inquiries may be directed to those authorities.

Simon Fraser University Library Burnaby, British Columbia, Canada

Update Spring 2016

Abstract

Canadian municipalities established by settlers are structured in a way that separates residents from their environment. We may have nice gardens, but our fences limit shared interactions with the ecosystem – this, we are told, is the responsibility of the government. Top-down management systems, including the outdated rational comprehensive planning models still used by Metro Vancouver municipalities, silence what remains of resident connections to the environment. This study explores the relationships of my Port Moody neighbours with their environment. Using the talk story, a type of talking circle method, my neighbours combined their different perspectives into solutions that were well-informed from personal experience and incorporated all of their concerns. Residents hold valuable knowledge that should contribute to the management of their own environment, and talking circles can provide the tools to re-structure management in a way that involves them on the community level.

Keywords: environmental governance; talking circle; urban planning; environmental reconciliation; climate change; community engagement

Dedicated to my father, who passed while I was writing this paper – probably because it took me so long. He shared his love for the natural world with me and I will always cherish that.

Acknowledgements

Thank you to my supervisor Laurent Dobuzinskis who maintained the faith that I would eventually graduate; to our program assistant Samar who kept my administrative ducks in a row; to Brenda Morrison and Clare McGovern for helping me to explore new approaches to research; most especially to my neighbours who shared their time and stories to help me write something that felt special.

Table of Contents

Declaration of Committee	II
Ethics Statement	iii
Abstract	iv
Dedication	V
Acknowledgements	vi
Table of Contents	vii
List of Figures	viii
Prologue	ix
Introduction	1
Why is this objective important?	3
Literature Review	8
Conventional school of thought	8
Alternative schools of thought	16
Conceptual Framework	22
Axiology	25
Methodology	27
Results & Discussion	37
Individual Stories	
Shared Understandings	45
Conclusion	57
References	61
Appendix A. Correspondence with the City of Port Moody	66

List of Figures

Figure 1. Sudy Area	2
Figure 2. Landslide photographs.	
Figure 3. Vancouver Sun landslide photographs	12
Figure 4. Vancouver Sun landslide photographs	12
Figure 5. Kerr Wood Leidal stormwater management recommendations	51
Figure 6. A photograph of Chines park meeting the neighbourhood	54

Prologue

"Indigenous people in Canada recognize that it is important for storytellers to impart their own life and experience into the telling." (Wilson, 2008, p.32)

I grew up playing in the dirt underneath blueberry bushes, eating sweet plums and sour apples that dropped from high branches, and jumping between evergreen trees in my backyard. My neighbourhood in White Rock used to be home to a few more trees, birds, and insects, but since I grew up and families moved, larger houses, patios, and driveways have encroached on that nature.

My neighbourhood in Port Moody, where I moved for graduate studies, has experienced much of the same. Mansions sit next to ranchers in a neighbourhood that has crept all the way across the Chines hillside over the last century. I only lived in the Chines for several years, but this research study tells the story of my neighbours who have lived there for half a century. Peter has lived in the neighbourhood for thirty-five years:

I moved here because I loved that it was a sleepy town. You know where the small high-rise city is - Newport, all the towers that are there? When I moved here, that was just coyotes and crickets. It was so dense I wouldn't even bring my dog in there. I would cycle around Rocky Point and you could hear the crickets. It was so thick with creeks running through it and so on. Now it's just concrete and steel and people, and I'm not complaining about it, but I've seen a lot of change here. There's a lot more people here now. I don't know how old you are, but you come here and you don't have the history I have, so you're not going to be as

impacted as I might be. When you arrive, you see the high rise and you go forth thinking it's normal from your perspective.

Although stories told from decades of experience will help to expand my perspective, they are incomparable to the years of Indigenous experiences that were silenced by the establishment of the City of Port Moody. Just down the road from Port Moody, "By 1907, the end of Chief George's life, the trees had fallen, the villagers at Lumberman's Arch were dead and the settlers had transformed the Snaug supermarket into a garbage dump." (Maracle, 2010, p.21) The Snauq that Lee Maracle refers to is the Granville Island area of Vancouver. The supermarket she refers to is the wild food such as camas and berries and fish that nature provided, with the nurturing support of the Squamish, Musqueam, and T'sleil Waututh. Then settlers poisoned the land and water, turning to supply chains and storefronts for nourishment. My Port Moody neighbourhood experienced similar clear cutting and its very own garbage dump (now just a clearing in the forest where trees don't like to grow). "After the trees came down, houses went up, more mills, hotels, shantytowns too, until we were vastly outnumbered and pressured to leave. B.C. was so white then. So many places were banned to Indians, dogs, blacks, Jews and Chinamans." (Chief Khahtsahlano, n.d., cited in Maracle, 2010, p.22) My neighbourhood is predominantly but not exclusively white, as it may have been in the past.

Port Moody is located on the unceded traditional territories of the Kwikwetlem, Musqueam, Squamish, Stó:lō and Tsleil-Waututh First Nations. I am part of the settler community; a second generation Canadian whose parents were both born in Africa but are of European descent. My presence in Port Moody has been fleeting – a reflection of the habit of my ancestors as they moved across the world, not having truly connected to any place since they uprooted themselves from the town of Inverkip in Scotland. Inverkip

is a port town named after the river Kip, which partially explains why my last name is a type of fish. A fish not found in Port Moody.

Although I identify as part of the settler community, growing up outdoors has helped me to identify as part of nature as well. My connection with nature is the reason I study environmental governance; I want to help my community to connect with nature on a societal level.

As a political science graduate student, I have learned how colonialism has degraded nature and displaced communities living in harmony with it. Settler communities such as mine are kept separate from nature and its nourishing potential is either paved over or fenced off; that is how colonialism (Canada) maintains its control. You may refer to Seeing Like a State by James C. Scott (2020), or Red Nation Rising, by Nick Estes, Melanie Yazzie, Jennifer Nez Denetdale, and David Correia (2021) for more general historical context. For the specific purpose of this study and my neighbourhood, it is the physical aspect of environmental displacement resulting from the settlement of Port Moody that is important. In other words, houses and roads displaced trees and ravines. Concrete and plants do not tend to coexist well. In the past few decades, this has led to landslides and flooding in my neighbourhood; but my neighbourhood is removed from the management of our own environment, that is the responsibility of the municipality. This is why I refer to my neighbours and I as part of the settler community, not because of some colonial mindset, but simply because we live in separation from our environment.

As a result of environmental displacement, two core aspects of my identity – community and nature – are often at odds with one another. The City of Port Moody has displaced the forest, water, animals, and Indigenous communities that called it home,

clearing trees for buildings, paving over dirt, and redirecting ravine networks into storm drains. A fish-bearing ravine used to run down the hillside where my house now sits, but it was redirected into a storm drain down the road slightly further west. A retaining wall was built in its place and has artificially supported my house in opposition to natural forces for decades, although this wall has slowly begun to crumble, and the house now has a slight tilt to it. A slight reminder.

I am interested in the connection (or in colonial terms, reconciliation) of my community with our environment. In relation, I am also interested in the reconciliation of my community with the local Indigenous communities that are displaced, but that is beyond the scope of my graduate study and a goal for future research. This study explores my neighbourhood's current relationship with our environment and begins to consider how it may be improved, or reconciled. I can only hope that it inspires further considerations to be made towards reconciliation between the communities that share this land.

The purpose of my research is to share the lessons I have learned with others, in the hope that we may help one another reconnect with nature on a community level. The research questions that follow reflect this initial exploration of my purpose as a researcher.

Introduction

Climate change is the result of a globalized perspective on our displacement from the environment. Although climate change is a global issue, it occurs locally. When we consider climate change in terms of global impact, we disassociate ourselves and prevent the recognition of our own environmental responsibilities; moreover, our own agency. Instead, we wait for national governments and international organizations to say something new. A local perspective has the potential to more closely connect the individual with environmental issues that have been framed in popular media as existing on a global scale beyond our reach. The globalism of climate change is a dissociative perspective that I believe local environmental reconnection has the potential to overcome. We have become disconnected from the environment and need to find ways to reconnect with it. We don't work on our land; we drive somewhere else. We have nice gardens, but our fences limit shared interactions and connections to our ecosystem — this, we are told, is the responsibility of the government. Beyond our property lines, there is not much we can do or say for the environment that we live within. We are synonymously displaced, disassociated, disconnected from our environment.

My research question is: after centuries of disconnection from the land, how does my neighbourhood understand our relationship with the environment - and can the management of this relationship be improved?

With this question as a starting point, the objectives of my research are exploratory: 1) to understand the relationship of my neighbours to our neighbourhood environment, 2) to consider the current role of the municipality in mediating this relationship, 3) to determine whether there is any need, or want, for structural change in local environmental management.

Drawing from Ball, Caldwell, and Pranis' experience with the use of talking circles in community planning (2010), I believe that increased municipal-resident communication and the inclusion of neighbourhoods in the management of their immediate environment has the potential to spark bottom-up structural change in environmental governance, as well as inspire individual agency in response to climate change. I begin to explore this idea through an in-depth case study of my own Port Moody neighbourhood, which is part of the Chines watershed that flows into the Burrard Inlet.



Figure 1. Study area delineated in black, the black dot is my home. City of Port Moody land is green, blue, and yellow. Coquitlam borders in grey along the bottom. Dark blue lines connecting to light blue creeks are storm drains leading to Burrard Inlet. (ViewPort ArcGIS Web Application, 2023)

My suburban neighbourhood occupies the space between full-concrete cities and the full wilderness of nature. The suburban in-between is where societies leave their largest per capita environmental footprints because residents live farther apart and require more infrastructure than city apartment dwellers (Zwick, 2021, para.7); however, I chose to do research in my neighbourhood because of my relationship with it, not because it is particularly suburban. Furthermore, I chose to focus on the level of the neighbourhood rather than the municipality because it is the level at which individuals are most familiar with their environment. For example, my neighbours all know the trail that starts at the end of Henry Street and crosses over the ravine, but perhaps not the other trails and ravines a few blocks over - and certainly not all the trails in Port Moody.

Why is this objective important?

My neighbourhood

Municipal environmental management decisions in Port Moody are being made with little to no public communication. The City of Port Moody maintains a low budget for public outreach and consultation. This is an important aspect of governance that has been deprioritized to the point where residents have become confused and misinformed by the city's one-off attempts to communicate. For example, in response to proposed updates to the city's development permit areas, "The feedback provided by property owners revealed that many were not aware of our existing bylaws and requirements, or the current process for development permits." (Morris J. Wosk Centre for Dialogue, 2021, p.6) The city received pushback on minor development permit mapping changes due to public confusion over development permitting in general.

The city's public outreach budget falls under the "Communications and Engagement Division" of the "People, Communications & Engagement" budget. (City of

Port Moody, 2022, p.116) Of this \$1.7 million budget, which includes staff salaries and other services such as human resources, consulting, and legal fees, \$37,000 is allocated to communications. That is 2% of the overall People, Communications, & Engagement budget. (p.117) This budget is relatively small in comparison to the city's \$12.7 million policing budget, \$19.4 million utility budget, and \$17.2 million capital projects budget. (pp.120-150). Of the approximately \$90 million in revenues and expenditures that passes through city hands each year, only 0.04% is invested in public outreach and collaboration. My neighbourhood is underinformed of its own environmental concerns, and consequently, how their own lives and homes may be affected.

The environment

The Chines watershed that my neighbourhood is situated within has been developed to the point where it is surrounded by concrete. Bordered by Coquitlam neighbourhoods on the ridge, roadways and houses climbing the hill on either side, and Port Moody neighbourhoods along the inlet, there is little to no remaining habitat connectivity. The Chines consists of ravines that are re-routed through underground pipes to reach the inlet. The flooding capacity of this infrastructure continues to be challenged as concrete surfaces along the ridge collect runoff that funnels down the ravine instead of absorbing into soil. (Associated Engineering, 2016) My neighbours share the memory of a landslide down Ottley Creek that wiped out an entire house in 1979 – apparently not our first landslide, but the most recent. They say after the landslide a storm drain was installed where the creek runs into the neighbourhood to provide some additional safety, but the land is still bare where the house once stood. It is now used informally as a walking path between the ravine trails and the road, and as a reminder that our community exists at odds with its own environment.

My neighbourhood's ecosystem requires care and consideration that is not being received. Moreover, although the municipality contracted a third-party consulting firm to develop the "Chines Integrated Stormwater Management Plan," (Associated Engineering, 2016) and is aware of the environmental needs of the watershed, none of this is effectively communicated to the residents. It is important for residents to understand the environmental conditions where they live to maintain a safe and healthy environment, to ensure the wellbeing of future generations that will inherit the land, and to ensure any future developments to not further degrade the land.

Academic significance

Although climate change has been researched extensively, individuals and their communities still lack the empowerment and agency that this knowledge should provide. I have observed a class of 60 university undergraduates studying climate change collectively express that despite all their research, they have no idea how they can contribute to positive change. My research begins to address this knowledge gap by exploring our connections to the environment and how these connections are managed on a local level. "There remain significant gaps in climate change action at the municipal level ... A survey of 481 communities across Canada indicated that while 75 percent had experienced extreme weather events in the last ten years, only 55 percent have considered adaptation, and only 5 percent had created plans." (Hanna, Seasons, Dale, & Filion, 2014, cited in Mitchell and Graham, 2020, p.32) More work at the community level should be conducted to bridge these gaps and empower residents to connect with their environment.

I believe we need to consider our relationship with the environment that we live within to know how to respond to the issues of climate change. Suburban residents have

larger environmental footprints due to their larger properties and commuting distances.

From the perspective of other cultures, more land might indicate more opportunity for self-sustainability – but for the typical neighbourhood in Canada, more land means more consumption:

Some of the direct environmental effects of sprawl are a consumption of a large land area and therefore often the conversion of agriculture or wilderness areas to urban environment, with many secondary effects such as water run-off pollution or wildlife habitat destruction. Low-density, large houses and associated lifestyles have also been linked to much higher general energy consumption than homes in the urban centres ... In terms of economic issues, low-density provides a much costlier form of development, especially on a municipal government level, since basic infrastructures have to be provided which require roughly the same amount of investment (such as water pipes, electricity lines, etc.), but for a much smaller tax-paying population base. (Arundel, n.d., para.4-5)

In addition, flooding is of central concern to Metro Vancouver areas: "It is projected that by 2050, all areas within Metro Vancouver will have significantly more health risks due to increasing flooding from precipitation, snow melt, sea level rise, and socioeconomic factors, such as increased population density and aging populations. (Owrangi, Lannigan, and Simonovic 2015). In additional to vulnerable populations, the city's infrastructure is at risk," (Mitchell and Graham, 2020, p.34) The high cost of suburban infrastructure maintenance is becoming more unstable because the environment that it has displaced is becoming more unstable.

The opportunity for neighbours to collectively discuss their shared environment and how it might be cared for is not often initiated by community members or municipalities. Beyond one's property line, environmental responsibility is left to the municipality – but as Arundel mentions, suburban municipal budgets are weighed down by infrastructure costs. This paper will explore how the environmental concerns that impact my neighbourhood, such as increased maintenance costs and flooding due to climate change, would benefit from more involved community consultation during planning processes.

Literature Review

The objective of this literature review is to provide a foundational understanding of my neighbourhood's disconnection from the environment, as well as perspectives that may facilitate reconnection.

Conventional school of thought

The colonial tradition (inherited by my neighbourhood)

The conventional school of thought that has shaped my neighbourhood's relationship with the environment was distilled in the seventeenth century by influential European philosophers and imported by colonial settlers. Most notably, Thomas Hobbes' (2000) social contract theory and John Locke's (2003) liberalism argue that man is separate from nature, that the state of nature is brutish, and that individual rights justify the privatization of land.

Nick Estes, citizen of the Lower Brule Sioux Tribe, history professor, and climate activist, provides a critical and Indigenous perspective on this conventional school of thought:

A liberal is someone who stands for life, liberty, and the pursuit of happiness. This can and does include most Americans, Canadians, and Europeans, regardless of where they sit on the political spectrum. But what does it mean to pursue life, liberty, and happiness? For Locke, life, liberty, and estate are best secured through ownership and dominion over property. The history of the United States is a history of the mass conversion of life into property. This has included (and continues to include) land, human beings, cells, animals, water, air, time, aquifers,

oil, rock, and more. Liberals turn pretty much anything into property if it can turn a profit. (Estes, Yazzie, Denetdale, & Correia, 2021, p.107)

The average Canadian homeowner has inherited this worldview. For example, I received a flyer in the mail stating that the City of Port Moody plans to update their Environmentally Sensitive Areas (ESAs) and Environmental Development Permit Area Requirements (EDPA). The flyer suggested that these changes may have a dramatic impact on my *property value* and urged that I write to city council to prevent any further work on these updates.

In addition to property value, financial burden was the primary concern raised in public consultation sessions held by the City of Port Moody on ESA and EDPA updates. (Morris J. Wosk Centre for Dialogue, 2021) Environmental concerns, on the other hand, remain unfamiliar to Port Moody homeowners. To quote a few of the homeowners who attended the City's public workshops:

- "I don't think there are major issues in what we need to improve in our environment, we just need to maintain what we're doing."
- "Bureaucratic interference in our lives is really starting to bother us wildlife is remarkable, so I'd like to know what created the demand for ESA, I'd like to hear if this is just a make-work project for the city?"
- "This is about revenue generation for the City."

(Morris J. Wosk Centre for Dialogue, 2021, p.8)

Despite the opinions of these Port Moody residents, the biologists of a third-party environmental consulting firm developed the "Chines Integrated Stormwater Management Plan" (ISMP), which informs the City of Port Moody's development of ESA and EDPA requirements for my neighbourhood area. The ISMP was developed by Associated Engineering in partnership with Coquitlam, Port Moody, and Metro Vancouver. Coquitlam borders the south edge of the Chines and Port Moody borders the

north edge, but Metro Vancouver is responsible for "the main stems of the creeks and the major piping system" (Associated Engineering, 2016, p.i) of the Port Moody-Coquitlam drainage area. So, although my neighbourhood is in Port Moody, the creeks running through it are managed by Metro Vancouver (Refer to Figure 1 for a visual representation of the boundaries).

The ISMP states, "Environmentally, the bare minimum standard is to maintain existing watershed health and functionality, combined with no-net loss of aquatic habitat, though this is increasingly seen as insufficient for watersheds that are already significantly impacted." (Associated Engineering, 2016, p.1-1) In other words, there are areas in Port Moody that have been significantly impacted by development and human activity beyond the capacity of the environment, and unless environmental conditions are improved, the area will become increasingly unstable. The Chines watershed is categorized as an area of high environmental sensitivity; it has been significantly impacted by residential development (or in other words, ecosystem fragmentation). Riparian areas such as the Chines are areas of high environmental importance because they are so biodiverse. Landslides have occurred in the Chines since my neighbourhood was developed, which highlights the importance of maintaining the health of the ecosystem – especially for the years to come.



Figure 2. Photographs contributed by the neighbour who still lives in the red and white house in the top right corner of the photographs. The house next door to them, photographed in the same image and on the bottom left, was located directly under Ottley Creek, top left, and washed away. Today in its place is a storm drain and a grassy patch of land between the houses that remain.



Figure 3. Vancouver Sun reporting of the landslide (Battling the Torrent, December 18, 1979, p.A1)



Figure 4. Additional Vancouver Sun landslide reporting. (Battling the Torrent, December 18, 1979, p.A4)

The Chines are bordered on all sides by residential housing. The uplands (the uphill residential portion located within the City of Coquitlam) are developed all the way to the top ridge above the ravines. The lowlands (the downhill residential portion where my neighbourhood is in Port Moody) are developed up to the point where the slope of the steep ravines starts to become more gradual. The impermeable surfaces of upland housing and road infrastructure collect stormwater runoff, so by effect a higher volume of stormwater diverts down through the ravines instead of absorbing into the earth. As a result, there have been landslides; one lowland property has had to be completely removed. The lowlands where I live face the additional risk of treefall because an old deciduous canopy above the properties at the edge of the forest is about to give way to younger understory coniferous trees. (Associated Engineering, 2016, A-24) If the City was to "maintain what we're doing" in my neighbourhood, environmental degradation and the risks of landslide, flooding, and treefall to residents would continue to increase. Unfortunately, although the average homeowner in my neighbourhood is aware of their property value, previous municipal engagement efforts suggest that many of us do not understand the needs of the very environment that we live in. This has the potential to lead us to increasingly unstable and even dangerous environmental conditions.

The conventional prioritization of property over environmental values has justified our disconnection from the land to a point that *has* become dangerous, for ourselves as well as for the environment. Our thoughtless reliance on the justifications of fifteenth century European philosophers is, at best, outdated. In the words of one conventional philosopher who has recognized this disconnection: "If we do not change the common dwelling... we shall be forever incapable of accommodating it in the environment that we can no longer control." (Latour, 1993, p.145) In other words, if we do not begin to prioritize environmental wellbeing over property value, eventually we will not have much property left to value.

Contemporary changes to conventional wisdom

Contemporary economic arguments such as Garrett Hardin's (1968) "The Tragedy of the Commons" continue to justify centralized control or private ownership of the environment. Hardin argues that without such management and control, the environment would be over-exploited in some type of chaotic free-for-all by anyone who can get their hands on it. "The presumption that an external Leviathan is necessary to avoid tragedies of the commons leads to recommendations that central governments control most natural resource systems." (Ostrom, 1990, p.9)

Elinor Ostrom makes the case that Hardin's argument is useful for understanding how the disconnection of a community from its land has been wrongfully justified, and explains that in many cases local, collective action can prevent Hardin's tragedy from occurring.

When Garrett Hardin published his paper in *Science* in 1968 on the tragedy of the commons, I thought gee, he has just made this up. It was '*imagine* a pasture open to anyone,' it wasn't 'here's my data' ... in that imagined pasture, people didn't talk, they just put as many animals on as they possibly could because whatever was left to eat somebody else would grab ... Well, that became almost like a religion and the presumption was that humans were helpless and that they had to have a government tell them how to do this and take over – or privatize it. But an external authority had to come in and do it, as if the external authority had people with different genes. Well, I mean, the people in the pastures are real people, people in the government are real. (Ostrom, 2014, 0:05)

Although this resembles a radical break from the conventional perspective, Ostrom uses traditional institutional language of ownership in her case studies to justify the ways in

which local, collective organizations ("institutions") can lead to less costly and exploitative methods of environmental management.

Although both Hardin's tragedy metaphor and Ostrom's case studies focus on the collective management of common pool resources such as fisheries and watersheds, Ostrom's findings revolutionize traditional understandings of institutional capability. She finds that participatory decisionmaking is the key to institutional resource management success, and that complex local environments are best maintained by local rulemaking that can respond to those complexities and maintain a degree of independence while nested within larger (in the case of Canada, municipal, provincial, and federal) systems. (Ostrom, 1990) She uses the logic of institutionalism to justify, in many cases, the advantages of local grassroots coordination over private (corporate) or centralized (government) control.

Our local municipal institutions have not yet recognized the implications of Ostrom's revolutionary findings. In their research on municipal planners across Metro Vancouver, Mitchell and Graham have found that municipalities still follow the rational comprehensive planning model that was adopted across North America in the 1950's. "The model, developed from the positivist movement, sought to incorporate scientific reasoning into planning processes. Planners' advice was assumed to be apolitical, and the final definition of the unitary public interest was assumed to be in the hands of elected officials." (Howe, 1992, cited in Mitchell and Graham, 2020, p.33) In other words, municipalities such as Port Moody make their own decisions. Residents can provide feedback, but the municipality retains all the power to decide whether to act on that feedback.

Ostrom's findings on collective action address the shortcomings of conventional institutional practices such as this. She provides principles developed from real-world experience that can replace the guesswork of exclusively top-down decisionmaking.

Alternative schools of thought have come even closer to understanding the importance of collective responsibility in environmental management.

Alternative schools of thought

There are two alternative schools of thought. The first alternative school of thought was developed over the last century within mainstream academia by critical theorists in reaction to conventional wisdom. The second "more alternative" school of thought from outside the walls of mainstream academia (although slowly entering) dates much further back than the fifteenth century and was developed within the environment itself.

Critical thought

The alternative school of critical environmental thought is scattered across many different fields both within and beyond political science. To name a prominent few: political ecology, political economy, deep ecology, environmental justice, restorative justice, literary ecocriticism, environmental philosophy, science studies. Political ecology research is most applicable to learning about my neighbourhood's disconnection from the environment:

Eschewing the management discourses of "resources" and the romantic glosses of "nature," political ecologists seek to understand the material flows, human/non-human relationships, and power regimes that comprise "socionature," and the discursively and materially constructed systems — simultaneously social and biological — that we inhabit. (Heynen et al., 2006; Keil, 2007, cited in Quastel, 2009, p.698)

Political ecology research provides a Foucauldian-style perspective on the importance of human/non-human interactions that may seem mundane or insignificant, but which maintain the disconnection of neighbourhoods such as mine from the environment. For

example, political ecologists recognize that "when green projects draw on rational top-down planning, they might... silence or erase existing residents' connection to nature – processes of invisibilization which must all be concurrently uncovered." (Anguelovski, Connoly, Garcia-Lamarca, Cole, & Pearsall, 2019, p.1080) From this perspective, my neighbourhood's relationship with the Chines and engagement in the development of environmental policies such as Port Moody's ESA and EDPA is much more important than conventional justifications of top-down control and management would have us believe. The significance of our relationship with the environment is silenced by our outdated rational comprehensive planning processes.

Issue-oriented critical research such as that of Anguelovski et alia is invaluable but can prove frustrating without solution-oriented follow-up. It can be difficult to consider a different way of doing things when existing institutions are conventionally considered to be so resilient to change. For example, alternatives to the rational comprehensive municipal planning model have been around for decades, but not adopted. As early as the 1960s, "Davidoff's classic "advocacy planning" framework... focused not just on the power differentials in planning processes but also on the object of planning. His target was the top-down decision-making of the postwar period." (Fainstein & DeFilippis, 2016, p.17) Alternative models, such as advocacy planning, encourage city planners to advocate for minority interests. Most recently, the "just city" model recognizes that "reducing the planner's role simply to mediation does nothing to counter initial inequality (Marcuse et al. 2009; Fainstein 2010). Overcoming inequality requires pressing for a contrary vision." (Fainstein & DeFilippis, 2016, p.17) Yet despite the existence of alternative planning models that encourage planners to balance the interests of stakeholders and press for further change, the rational comprehensive approach persists. A city planner cannot change the system alone while they attempt to balance public interests with the political interests of their municipal colleagues. Different

approaches to planning need to be accompanied by different approaches to institutional management in general. Perhaps for this, we should search outside the walls of our municipal institutions.

Karen Bakker, Canada Research Chair in Political Ecology, favours the grassroots approach of collective action institutionalized by Ostrom in the 1990s. Bakker aligns her own argument more closely to grassroots radicalism than institutionalism, however, admonishing Canadian culture as, "rooted in a liberal tradition that prioritizes private ownership and individual rights." (Bakker, 2007, p.257) This echoes Estes' profitoriented perspective of liberalism. But although Ostrom implicitly adheres to the conventional tradition of rights and ownership in her institutional approach, the grassroots nature of collective environmental management is inherently more reciprocal and responsibility-oriented than conventional rights – one must maintain their own environment if they want to continue to live in it. Bakker extracts the inherently reciprocal quality of collective action from Ostrom's work and turns to Indigenous leadership for solutions to environmental management issues in British Columbia. For example, "Building more equitable and effective water governance in BC will require fundamental transitions away from the existing colonial water governance framework." (Simms, Harris, Joe, & Bakker, 2016, p.14) The conventions of our liberal tradition prevent us from facilitating the growth of a collective relationship with the environment. Indigenous traditions *are* a collective relationship with the environment.

While Bakker turns to Indigenous leadership for solutions to British Columbia's environmental management failures, I turn to the Indigenous methodologies outlined by Shawn Wilson in *Research is Ceremony* (2008) and Jennifer Ball, Wayne Caldwell, and Kay Pranis in *Doing Democracy with Circles* (2010) throughout my research process to help consider the connections, rather than the disconnections, between my neighbourhood and the Chines.

Indigenous Worldviews

Indigenous knowledge lives within nature, outside the walls built by academia. "The environment is the knowledge," (Wilson, 2008, p.118) and when you ask the environment itself, it quickly becomes apparent that the state of nature popularized by Hobbes as brutish is actually harmonious. In the words of Raven, "That's one of the primary tenets of our ontology. If it takes away from nature, you have to give it back, so that there is a balance. Because the only one that was going to lose out is you, in the long run, we know that." (n.d., cited in Absolon, 2011, p.61) Harmony, or balance, justifies a reciprocal, responsible relationship with the land in the name of collective wellbeing. Brutishness, on the other hand, justifies top-down control and private ownership – which Ostrom, Bakker, and Indigenous scholars warn against, to varying degrees. Reciprocity does not oppress people or nature; it enhances their relationships. The argument of private rights versus collective responsibilities in critical thought finds a clear answer under the Indigenous ontology of relationality.

Although the ontology of relationality is shared across different Indigenous communities, the epistemologies that play out in cultural traditions vary as much as the flora and fauna of their different geographies. For the Mi'kmaq who live along the Atlantic coastline, "the ecosystem in which they lived was their classroom; the life forms who shared the land were their teachers.' Building upon the earth's teachings in this manner, the Mi'kmaq people seek to apply natural law to their relationships with others."

(Borrows, 2010, p.62) Rather than prioritizing property value, Mi'kmaq tradition prioritizes reciprocity and wellbeing. Indigenous communities learn from their environment, not from the abstract ideas of European philosophers.

Borrows (2010) explores these Mi'kmaq traditions alongside seven other Indigenous cultures: Haudenosaunee, Anishinabeck, Cree, Métis, Carrier, Nisga'a, Inuit. The Cree, for example, also follow principles found in nature, but their interpretation of

these principles differs from other cultures because of their different perspectives (or alternately, their different experiences). Cree traditions require parents to "nurture and care for their child with loyalty and fidelity" while other relatives should simply be treated "in a non-coercive manner." (Borrows, 2010, p.84) Mi'kmaq traditions emphasize that children are loaned to parents by the Creator and must be watched over at all times. (Sarah Denny, 1994, cited in Martin, 1994, p.1) The emphasis is different: "the responsibility of parents is to nurture their children's spirits so that they will in time, return to their Creator, pure and whole." (Martin, 1994, p.5)

Due to the relational ontology of Indigenous cultures, it is understood that even one cultural tradition is interpreted differently by community members because of their different interactions with it. It is therefore important to emphasize that individual understandings cannot ever fully embody the depth of their cultural context. In other words, I cannot speak *for* any other individual or culture, but only share my own personal understanding in the context of my own culture and the relationships that I have built.

Shawn Wilson, an Opaskwayak Cree professor of Indigenous research from northern Manitoba, has collaborated with Indigenous teachers from across the world to transform nature-based traditions into an Indigenous research paradigm that mainstream academia can understand. This Indigenous research paradigm is based on reciprocity, collective responsibility, collaborative problem solving, human/non-human wellbeing, and focuses on the importance of gaining knowledge through building respectful relationships. Wilson provides the methodological tools with which I may attempt to address mainstream academic knowledge gaps, such as the issues uncovered by political ecology literature, and my neighbourhood's disconnection from the environment. In reference to the relationships that he has built with Indigenous communities in Australia, Wilson states, "The value of the research is that it offers a beginning to further understanding and learning between two cultures." (2008, p.131) I will attempt to

establish connections in my own culture with Wilson's multicultural advice on respectful relationship building (outlined below).

Conceptual Framework

The conventional and alternative schools of thought present very different ontologies of what we can know about the environment. The conventional ontology argues that humans are separate from the rest of the world; Indigenous ontologies understand humans are part of the world. Situating environmental ontology within historical context, it is more accurate (especially in Canada) to identify this ontological division as Indigenous and colonial. My ontology aligns with Indigenous understandings because they reconcile the "community" and "nature" aspects of my identity that remain at odds under the conventional colonial ontology. In terms of my neighbourhood, this ontological divide is significant for understanding the context of our displacement from the environment. The use of Indigenous and colonial terms in this research stand as a reminder of this significance.

Indigenous research paradigms stem from cultural worldviews completely separate to the dominant ontological spectrum. To illustrate: picture critical theorists running to the farthest corner of the room that they share with positivist statisticians - they look out the window but stay inside. Then outside, sitting under a tree, is the Indigenous worldview that lies beyond their experience because colonial culture hasn't yet discovered how to pass through the theoretical abstraction of the wall into reality outside. In regard to mainstream colonial culture and the expert opinions of its scientists, "the system will say all that needs to be said about the mountain – and say it with numbers." (Evernden, 1985, p.9) Indigenous communities would likely rather let the mountain speak for itself by means of their intimate understanding of its ecology.

An Indigenous worldview is based on relationality and relational accountability.

Relationality understands knowledge as the product of relationships; in other words,

individual knowledge is inseparable from the web of relationships that it has formed in the development of its knowledge. "Once we recognize the importance of the relational quality of knowledge and knowing, then we recognize that all knowledge is cultural knowledge." (Wilson, 2008, p.91) Indigenous research recognizes that it is important for the researcher to situate themselves within the research to both develop a relationship with the reader and improve the reader's understanding of where the research is coming from.

The relationality of the Indigenous approach outlined by Wilson grounds research in a reality that is accountable to both humans and nature, encouraging reciprocity and collaborative problem-solving. From this perspective, it becomes clear that transformative change in our liberal, colonial society's relationship with nature begins at home, with neighbours discussing how they can improve the health of the land that they share – if not for any agenda other than to ensure their own wellbeing. We may feel as though there is not much we can do beyond our property lines (if we are lucky enough to own property), but collaboration with our neighbours may change this perspective. In Canada, municipalities are *supposed* to facilitate public engagement. "In 1978, then Prime Minister of Canada, Pierre Trudeau, stated, 'The only choice facing governments at all levels is whether to invite such participation at every stage of the decisionmaking process, in an atmosphere of co-operation, or whether to encounter participation after the fact, in an atmosphere of hostility. It is really no choice at all" (Chapin and Deneau, 1978, cited in Mitchell and Graham, 2020, p.33) Despite the City of Port Moody's comparatively meager budget for community engagement, we still can attend council meetings and add to the agenda, we can form committees and confer with the environmental or planning department, and we can engage with public outreach efforts. We can help to create the space for more community engagement.

Principles of relationality and reciprocity align with principles of collective action, providing both the theory and the tools to (re)consider neighbourhood-environment connections.

Axiology

Absolon and Willett compare Indigenous and colonial approaches to knowledge: "Euro-Western research is 'wrapped around empirical evidence and the 'burden of proof..." Indigenous thought, on the other hand, is holistic, circular, and relational." (2004, p.5) The quality of accountability in Indigenous thought means that concerns of value and ethic are built into the approach. An Indigenous research framework allows for the research participants to agree on what is valid; this way the research is held accountable to its participants rather than an institutional ethics board. Furthermore, Wilson points out that in mainstream academic research, "Right or wrong; validity; statistically significant; worthy or unworthy: value judgements lose their meaning. What is more important and meaningful is fulfilling a role and obligations in the research relationship – that is, being accountable." (2008, p.77) Ethics are embedded within an Indigenous research framework.

The values that underline Indigenous talking circle practices vary between different communities, but Clare Brant (1990) provides a well-known and well accepted summary in "Native Ethics and Rules of Behaviour," which Shawn Wilson (2008) draws from in *Research is Ceremony: Indigenous Research Methods*, the book that provided me with a foundational understanding of Indigenous research methods on my search for a methodology aligned with my research purpose. Brant (1990) outlines seven principles, or ethics, to live by:

- 1. Non-interference
- 2. Non-competitiveness
- 3. Emotional restraint
- 4. Sharing

- 5. The Native concept of time
- 6. Attitude toward gratitude and approval
- 7. Native protocol and the principle of teaching

"These first four principles are designated as the most important factors promoting harmony and the latter four are believed to be less influential. These practices ... were enshrined as "ethics" or principles of behaviour. Over time they became embedded in Native culture as societal norms and continue to influence Native life today." (Brant, 1990, p.535) These principles, particularly the first four, are embodied in talking circle and talk story practices; take turns speaking and listen until someone has finished their thoughts, be respectful of other understandings, share your own experiences, have patience.

Researchers that use talking circles have had their participants express gratitude for the value-based protocols that structure the circle meetings. For example, "We have been involved in some fairly active community meetings - finger pointing, yelling, screaming. That kind of stuff doesn't achieve anything. This circle process, I felt, achieved something. It's a really good way of cutting down on rhetoric and allowing people to speak and say what they think without being, you know, wrong or shut down." (Ball, Caldwell, & Pranis, 2010, pp. 13-14) My neighbours felt similar. In the words of Neighbour 2, "Thank you, because I appreciated the talk story idea and the way that you've designed this meeting, I think it's really good. I like the First Nations Indigenous way with a talking stick, and we weren't allowed to interrupt, that was good you know just to hear everybody and be able to talk about what's important to us."

Methodology

Russel Bishop explains that reciprocity is not only a perspective or specific action, but an entire approach "in which the researcher becomes immersed that holds the key to knowing." (1998, cited in Absolon, 2011, p.53) In practice, reciprocity is embodied in the principle of relational accountability that Wilson explains is the key to Indigenous research. "Research must use relational accountability, that is, must be connected to or part of a community (set of relationships), if it is to be counted as Indigenous (Cardinal, 2001; Steinhauer, 2001a, 2001b; Weber-Pillwax, 2001; J. Wilson, 2000)," (2008, pp.41-42) My research question is focused on the wellbeing of my neighbours and the environment (after centuries of disconnection from the land, how does my neighbourhood understand our relationship with the environment - and can the management of this relationship be improved?); the relationally accountable methodology I follow to answer this question helps to ensure that the benefits of the research are reciprocated with my neighbourhood.

The talk story method outlined in Wilson's *Research is Ceremony* provides a lens for my research to interpret the relational, reciprocal reality outlined above:

Peter: So it's, you add on or hook on to the previous speaker. And though you may disagree, you are not disagreeable. So it's never confrontational, and you add on, and you might give a tiny little twist to it. To have the other person consider where it is that you are coming from. We are each respectful of each other, so you get a slight hint at, okay, I said this, but he's saying something a little different. So the other person then to affirm the direction that the twist seems to be happening, then they might, you are putting yourself in the other person's seat to try

to understand where they are coming from. So without saying. So then the third person, trying to read either the conflict or difference, tries to resolve it. So that there is some mediating point that meets both views.

Stan: So in other words, each person's piece of talk does not stand alone.

Peter: Right, cause you are actually just, it starts and then you are getting into a smaller and smaller circle, till you are getting to a point where everyone in the circle is, everyone's view is tied up in that, in the point that it ends up at. (Wilson, 2008, p.93)

Peter Hanohano is a Hawaiian Native; Stan and Shawn Wilson are Cree. The talk story is a product of multiple cultural perspectives and grounded in shared values. The idea of a talk story is to add on to the thoughts of the previous speaker, incorporating the different perspectives in the room. This practice establishes a non-confrontational conversation, based on Brant's Native ethics outlined above. Brant says Native ethics are techniques that developed from the basic need for individuals to unify and cooperate to survive harsh conditions. (1990, p.534) The requirement of each participant to address, mediate, and incorporate the perspectives of the other participants (rather than dismissing them and trying to argue their own point, as is the habit of my own culture) establishes respectful cooperation and develops a shared understanding.

Talk stories, and talking circles in general, are like focus groups in that they are a group discussion, but they have a very different style. Focus group discussions tend to be structured by pre-determined content rather than a shared ethical protocol. Usually, the researcher prepares a list of questions to fill the time allotment in a focus group, while talking circles begin with a few guiding words, general questions, or an issue to

focus on. In focus groups, the researcher tends not to contribute their perspective to preserve the original contributions of the participants. In a talking circle, the facilitator collaborates with participants to develop new understandings from the shared knowledge of everyone involved.

The fear of researcher bias is a non-issue from an Indigenous perspective because it is understood that the researcher cannot separate themselves from what they are studying – in fact, the academic goal of objectivity is entirely counterintuitive to a relational ontology. "That whole idea of "discovering" something is not there, as what you are doing is just creating a new set of relationships." (Wilson, 2008, p.114) It is the relationship between the researcher and participant that develops new findings.

Moreover, while mainstream academia considers the separation of the researcher from participants important to the unbiased, objective discovery of knowledge, Indigenous experience considers this disconnection as disproportionately advantageous to the researcher – and on a cultural level, as a means of oppression. "You know that sexual exploitation and total denigration of our humanity was a big part of colonialism. Now that is taking place with our ideas and knowledge. Our knowledge is being stripped of its relationships and being used without accountability." (Wilson, 2008, p.114) A talk story provides the structure for a respectful, accountable, and collaborative approach to knowledge production.

Although Indigenous research frameworks lie outside of the traditional research spectrum, this study would most closely relate to a typical (or representative) case in qualitative research. A typical case study "is an inductive approach to case selection," (Gerring, 2008, p.649) which relates to my open-minded approach more than deductive methods. According to Gerring, a typical case represents the "central tendency" (Gerring and Cojocaru, 2016, p.396) along a certain distribution. From this perspective, a typical

neighbourhood might be defined as a mid-sized property, or by the mean property value. My neighbourhood is located approximately 20 kilometres from downtown Vancouver, amongst the suburban sprawl where the lots are about a quarter acre each. The properties in my neighbourhood are a mixture of small older builds with big yards and large newer builds with small yards, a common occurrence amongst the aging Vancouver suburbs. While the area I have selected may be representative of a typical suburban neighbourhood, it was chosen because of my relationship with it and not because it resembles an abstracted ideal.

I delineated the sample size of my neighbourhood based mostly on physical barriers, but partly on the limitations of this study. The Chines creates a natural boundary to the south of the neighbourhood, and there is a main thoroughfare that borders it to the north. To the west, the neighbourhood is bordered by Port Moody Secondary and the same main thoroughfare as it turns to climb up the hill. The neighbourhood continues along with the Chines to the east; however, Henry Street's dead end and the topography within the Chines creates a somewhat natural boundary. I established these boundaries rather than including all the houses that border the Chines for two reasons. First, the sample size would be too large for the scope of the study because the Chines stretch across almost the entire length of Port Moody's southern border. Second, the area chosen is the area where my neighbours and I are most familiar; we walk the trails and sidewalks within these study boundaries almost daily. There are 51 houses within the delineated boundary, which is large enough to ensure a diversity of perspectives, while small enough to manage — especially in consideration of the participatory nature of this study and its lack of funding.

Research process

The talk story with my neighbours was hosted on Zoom and transcribed into NVivo 12 qualitative data analysis software. I held one talk story. Although two optional times were provided in the interest of accommodating the availability of as many neighbours as possible, all neighbours chose the same meeting time. A total of six individuals from five different households participated over Zoom; approximately 10% of the 51 households within the study area. Neighbours uncomfortable with the social and online aspect of Zoom provided separate contributions, referenced in the Prologue and through the photographs provided. Most of the six Zoom participants knew at least one or two of the other neighbours attending; in conversation they referred to one another based on the street they live on.

At the start of the Zoom meeting, I explained a type of talking circle method would be used, highlighting its Indigenous origins and emphasis on listening and respect for the contributions of others. I explained that a talk story more specifically focuses on connecting the narratives of each individual in a way that ends up with one fluid group narrative by the end. As a member of the settler community, and due to the online setting, I did not attempt to replicate specific Indigenous cultural protocols surrounding talking circles. We greeted one another and introduced ourselves, then I introduced the talk story as Wilson (2008) outlines it and explained how it has been used in settler community contexts, as outlined by Ball, Caldwell and Pranis (2010).

Afterwards, I transcribed the talk story on NVivo 12 for further consideration.

Thematic coding was used to identify emergent themes from both talk stories. There were three main themes, entitled *environmental perspective, neighbourhood experience,* and *structural management*. I encoded a fourth theme entitled *miscellaneous* to

incorporate other important points that stood more independently. These themes developed from the direction of the initial three considerations posed for discussion: 1) what is your relationship with the Chines watershed, 2) what experience do you have with the way the Chines and/or your personal property is managed by the city, 3) what is your perspective on how our neighbourhood environment should be managed?

In qualitative research, a second or third round of coding is often required to make insightful connections and look at data in new ways. While re-sorting information in search of new patterns or meaning has its uses, it does not feel right in the context of a talk story to reorganize the understandings of my neighbours into one that is my own, or something different. It feels closer to stripping information from its relationships and removing the accountability, as Wilson explains in an above quote. Moreover, the structure of the talk story facilitated the re-iteration of understandings in the way that neighbours were encouraged to address and incorporate what those before them had shared, because "then you are getting into a smaller and smaller circle," (Wilson, 2008, p.93) until a shared understanding is reached. This will become evident in the *Results & Discussion* section below, where I share the individual contributions in the order they were discussed and then how they combined into a shared understanding after.

Limitations

From a positivist perspective, the relativity of this style of research may be considered too prone to bias, or too situational to be applicable to other neighbourhoods. This study, however, could be replicated in other neighbourhoods. Replicability can help to compensate for relativity, as well as establish external validity. (Given, 2012, p.755) Applying the same methods in different neighbourhoods would account for the differences between each neighbourhood environment and develop more

comprehensive findings for Port Moody. It is important to note, however, that the aim in the case of my research is not to see whether different neighbourhoods will reach the exact same conclusions, but rather to include more perspectives within the community in the decisionmaking process when it comes to the management of their own environment.

Moreover, the participatory nature of a relational approach to knowledge ensures that the perspectives of participants remain intact; quantitative surveys and statistics break apart individual perspectives and rebuild them into patterns that are often criticized for too neatly fitting into predetermined hypotheses and no longer representing the individuals they were extracted from. "If we cannot have pure experiences, all data is soft because it presupposes prior theories that are themselves contestable." (Bevir and Rhodes, 2015, p.18) That is the magic of talk stories, not only do they create a respectful space for participants to share their experiences, but they also allow for individual experiences to develop into a shared understanding. It is like self-iterating research. Shared knowledge develops organically through a discussion that combines individual contributions into something different yet the same; a conclusion that is inclusive and agreeable.

Shawn Wilson says one of the main issues with the dominant scientific approach to Indigenous research is its focus on problems: "In many of their conclusions, the studies identify "problems" that are in need of further study (Dion, Gotowiec and Beiser, 1998; Novins et al., 1997)." (Wilson, 2008, p.16) After a decade of reading academic papers, I would go further to say that the dominant scientific approach within the social sciences generally identifies more problems than solutions. The shared understandings developed from talking circles provide a refreshing alternative.

In traditional research practices, concerns of siding with research subjects arise in situations where the researcher does not fully, or objectively, separate themselves from their research. In this case, good relations with my neighbours are how shared findings, and furthermore solutions, are developed. Good relations are essential to successful, healthy research outcomes. I do not worry about siding too much with research participants because their stories are their own, and my story – weaved through this paper in relation to those who I have read or spoken to – remains my own.

Limitations that should not be limitations

As a non-Indigenous academic using an Indigenous methodology to engage my neighbourhood, concerns of misinterpretation and appropriation should be addressed. Indigenous methods were used to mediate the discussion with my community because they incorporate values of respect, relationality and reciprocity that align with my research purpose and are absent in non-Indigenous research frameworks. Indigenous culture was not explored with research participants beyond the introduction of the talk story and its associated values; it structured the discussion of our own culture from a different perspective. Indigenous research frameworks are still rather taboo in academia, but they present an important paradigm shift in the way that research should be conducted. Non-Indigenous academics, or allies, have a responsibility to push back against their own culture in the interest of reconciliation. In other words, to help create the space to, "push the edge of the ideological certitude of what counts as knowledge and research in the academy." (Kovach, 93, 2021) Furthermore, in the words of Linda Smith:

From the vantage point of the colonized, a position from which I write, and choose to privilege, the term 'research' is inextricably linked to

European imperialism and colonialism. The word itself, 'research', is probably one of the dirtiest words in the Indigenous world's vocabulary. When mentioned in many Indigenous contexts, it stirs up silence, it conjures up bad memories, it raises a smile that is knowing and distrustful. (Smith, 2021, p.1)

Outdated colonial research traditions that objectify in the name of science are slowly shifting. We have ethics boards, we are told to position ourselves within our research and write reflexively, to consider the benefit of our research to its participants. Despite this, "We assume that people can select methodologies solely in relation to a research curiosity without a reflection on the self... Indigenous methodologies require a purpose statement about self in relation to the world." (Kovach, 2021, p.150) Relationality holds us personally accountable in ways that ethics boards and reflexivity cannot. For this reason, I think non-Indigenous academics would do well to make the effort to learn about Indigenous research frameworks and read about Indigenous methodologies, rather than point to cultural differences or identity politics and claim they are only for Indigenous academics because we are too culturally different to properly understand. We should be aware of the brutal historical context of research in Indigenous culture, but learn from this awareness and appreciate even more the heart-centered approach that Indigenous academics have established in the face of our traditional practices – despite the lack of reconciliation that has occurred to this day.

Since this research was conducted with my own settler community, I did not approach any nearby Indigenous communities for their input. As alluded to in the prologue, this was outside the scope and timeline of my study, but it would certainly have added depth to our shared understandings of environmental management to have both local settler and Indigenous participation. This is an ideal situation to work towards

in future research. I believe it was necessary to start with understanding my own neighbourhood's relationship with the environment before venturing out. Our society has been disconnected from the environment for so long; there has been a lot to unpack.

In regard to Indigenous consultation on the methodology, I had reached out to several Indigenous Studies faculty members, but did not find an opportunity to meet and receive their feedback. I have been told that the Department of Indigenous Studies is kept quite busy these days with external requests such as mine. I am fortunate, however, to have connected with an expert in restorative justice from the Department of Criminology, who is quite familiar with talking circles and the Indigenous worldviews that have been central to the development of restorative justice practices. Their feedback has helped me to improve as a researcher beyond the knowledge boundaries of my Department of Political Science, and I am grateful.

Rather than fear cultural appropriation and maintain division, I think non-Indigenous academics should acknowledge that although we do not know everything, it is important to try to learn. "Colonization, assimilation, oppression and racism have dismembered individuals, families, communities and nations. Wholistic worldviews reconnect and remember us to each other again in process and in practice. Wholistic approaches are inherently inclusive, which fosters and facilitates healing searches and healing relationships." (Absolon, 2011, p.59)

Results & Discussion

Although it was everyone's first experience with a talk story, including mine, we found success in the process. My neighbours responded to and built upon one the ideas of one another, forming a cohesive, agreeable narrative. I will summarize the story of each neighbour in the same order that they spoke, using as many of their own words as possible, then move on to discuss the connections between individual understandings that developed into one shared understanding by the end of the talk story meeting. Not only in terms of answering the research questions, but also in appreciation for how the method itself shapes the connections that are made in a way that promotes cooperation and problem-solving.

Individual Stories

Neighbour 1

They live next to Axford Creek, along the edge of Chines Park. "Our whole backyard is actually the forest, um and we were told it's deemed parkland so nobody can ever develop or build or change anything at the back and side of our property." Located next to the storm drain where Axford creek is redirected under Elgin Street, they often interact with city workers. They consider their relationship with Port Moody non-existent, despite efforts on their part to communicate about various needs such as street drainage and maintenance. They consider their relationship with Metro Vancouver, however, outstanding. Metro Vancouver is responsive and appreciative of each interaction. "I think the City of Port Moody needs a big shake up in whoever handles parks and recreation. We understand some of that's their responsibility in terms of getting an arborist in."

Regarding management of the neighbourhood in general, "there needs to be better communication and a schedule of exactly who handles what, what's Metro Vancouver, who do we call, what's Port Moody and who do we call. All Port Moody seems to do is shuffle it off to Metro Vancouver." This neighbour cares for their environment where they can and regularly makes the effort to communicate with the municipal departments that manage the rest. Due to the one-sided nature of many of their efforts to communicate, their experience is that "if we're not on people when they're in our neighbourhood and asking what they're doing and how they're going to do it any making sure they follow through, we're not going to have things in a safe way."

Neighbour 2

This neighbour also lives along the edge of Chines Park. They relate to Neighbour 1 in regard to their experience with Port Moody staff. "Sometimes they threaten me for my activity behind my backyard, sometimes they help. On a few occasions they came and cut the trees because trees were dangerous and sometimes trees were broken by windstorm. So they might be useful sometime, but not all the time."

In regard to the trees, "In my backyard it's wet and it's dark. So it would be nice if municipality removed all of those trees because some might be 50 feet high, some might be even more. They block in all the sunlight and starting from August, yes say August, we don't see any sunlight in our backyards at all. So it would be nice if they replaced tall trees with trees that doesn't grow taller than say 15 feet, that would be ideal."

They walk their dog in the Chines Park trails every morning, adding a new perspective. "Accessibility. I think we need more trails. Couple of trails in this area of park are badly managed, I am talking about two trails south north, one is from Lillian

Street and goes all the way to Henry. And one from Blue Mountain Street all the way to a secondary school. They do some repair sometimes, but clearly, it's not enough."

In addition, they would like to see landslide prevention strategies developed and/or communicated, as well as the follow-up and communication about a landfill that was historically situated next to the neighbourhood, "it was long time ago, now it's all overgrown but big trees don't grow there so you might find out where it was exactly. One of the neighbours told me about that, I didn't know about it. And it's behind block 22 I believe, behind block 22 and 21." Whether or not landslide and landfill concerns have been addressed by the city, they have not been communicated to this otherwise well-informed neighbour.

Neighbour 3

This neighbour lives close to Schoolhouse Creek and is a streamkeeper, "the Schoolhouse Creek has a lot of chum coming back right now." Perhaps coming from more of a fish than dog-related experience, they would prefer not to see any new trails, "that kind of hillside can get really disturbed if too many people are up there. So I mean sure, we should keep the trails good, but I'll now refer to what [Neighbour 1] said, which is I totally agree with [them] about Port Moody, never seen a place so badly managed." This is regarding trail maintenance, as well as the tennis courts and grass field next to Port Moody Secondary – which they explain is city property, not school property, and are underappreciated amenities due to their state of neglect.

Neighbour 3 responds to Neighbour 2's comments about tree management, and builds on it, "I wouldn't want to see too many trees being cut, but I think now we're into the wildfire problems with climate change. So what would be good is if they do a wildfire management of the park too, which might mean cutting down some

of the trees, or trimming them, or getting rid of the fuel that could burn underneath that's near the houses." They would prefer trees to be cut more selectively, in response to environmental risk. This neighbour's intimate relationship with the natural environment allowed them to balance their discussion of the issues with thoughtful solutions.

They also respond to Neighbour 1's concerns about Port Moody's street maintenance, "my neighbour asked for, he was here for 25 years and then they moved, and he asked every year for them to repair the dip in the road... as far as I can see, the Port Moody workers, they're not onto it."

Neighbour 4

This neighbour lives along the border of Chines Park off Hope Street. They maintain the unanimity of perspectives on trail maintenance and add additional nuance to the discussion on tree management.

We've had numerous trees fall in our yard and on our house from the greenbelt behind us. Luckily, it's not done any severe damage except scare the daylights out of us. We have called the arborist, or the City of Port Moody, and the arborist has come, and he has, as [Neighbour 2] said, told us everything is safe, the trees are good, and then the next windstorm is when we had a good one fall down on the house... we don't have to worry too much about the trees anymore because like I said we've had several instances of the trees coming down and there's not many left now, they've mostly come down.

The safety of an individual in their home is added to concerns of tall trees creating too much shade, and environmental risks such as wildfire prevention and stream protection.

Neighbour 4 supports Neighbour 2's comment on the need for more landslide prevention:

In our yard there was so much water that has come down, my husband has put drainage across the back of the yard, not against the house but across the back of the yard, he's got a pipe that goes all the way down to Hope Street, and if ever you walk on Hope Street in front of our house and it's been raining, you will see the water that just comes gushing out of that, you could harvest that for electricity I swear, it just comes gushing out.

Neighbour 2 comments, "in my backyard it's wet and it's dark," so this need is not unique to one property.

Neighbour 5

This neighbour lives near Elgin and St. George Street. They appreciate the cool breeze that occasionally drifts down from the Chines' microclimate during summer months, but also seem to appreciate their distance down the road from the forest.

Responding to tree related concerns from their own perspective: "The negative effect is that probably when our house was built back in 1923, that had probably been a logged forest, and the thing about forests is that they have trees and the thing about trees is that they grow, and so I think in the fifty years we've lived here, the percentage of how high the trees have got has been quite considerable."

In regard to landslides and municipal management, they are aware that work has been done by Metro Vancouver in response to previous landslides – although, decades later, communication on these efforts remains unclear:

I was in the house in 1979 when the slide came down from the top of Porter. And that was a bunch of fill that was put up there, and there were hydrological studies done of that by the City of Coquitlam. At the time, and I don't know if it's changed, they would not make that report public for the purposes of liability. I don't know if that's true or not still, but it's a bit concerning that one municipality doesn't hold that responsibility. But I guess that's a Metro Vancouver responsibility. I'll say another thing about the Metro, every time there is a fairly substantial rainfall, they come around and they check that creek as it goes under St. George Street at Elgin. Um, and that particular easement in that lot on the corner was built after the 1979 flood. And the creek that came down, the water where the slide came down, a certain amount of that water is now diverted to go to the creek that goes down and joins the creek that goes down by [Neighbour 1 and 6's] house. That was a GVRD decision and they're responsible for that water.

This neighbour is well-informed of the actions taken by Metro Vancouver due to personal observation and is concerned about the lack of transparency around environmental responsibility, raising important questions in regard to accountability. What if a danger tree falls onto private property after the property owner warned local government? "Well, there's only two people to blame for that, one of them is a tree and the other one's a person that said it was okay. So that troubles me a bit."

They miss seeing more children play in the forest trails, but "that may be a reflection of the tenor of the times." Regarding the quality and number of trails, "how much traffic would we want there anyhow?" They consider the Chines an area more for

locals than a destination for others, a sentiment of general consensus throughout the discussion.

Neighbour 6

The individual considered by Neighbour 5 as "the ultimate authority on the neighbourhood," spoke last. As the partner of Neighbour 1, they also live next to Axford Creek and border the Chines.

What's my relationship with the Chines? I often walk in it. I know the trails that have been spoken about. From a structural sense, some of the trails need to be built up with larger rock, especially the one at the end of Henry St, so that the monsoons that come down there don't wash it out. Um, I really like the idea that was suggested or maybe I'm just thinking out loud here that there would be a buffer between the houses and the, um, now maybe 20 metres up with different types of foliage that would minimize the fire risks. I think that was an excellent idea. The park you're talking about at Schoolhouse where the tree fell over, the whole thing is filled with Cottonwoods, they've got developing going in there and there's going to be somebody killed there. It would be smart on my thinking that a more robust tree like a cedar or something should be put in its place and allowed to grow up, and the cottonwoods knocked down in the future. I don't know how that sits with the stream people, but GVRD did some work in behind our house on the other side of the creek a few years ago when the windstorms knocked down a bunch of trees, and they took out some danger trees and replaced them with evergreens. So I don't see it as being an issue.

They contribute their perspective to the issues discussed by our other neighbours. They agree with Neighbour 1 on their great relationship with Metro Vancouver. They add that as of a couple years ago, "It's my understanding that they won't let their own parks people go into the bush now because there are danger trees in there so they hire an outside contractor to come in and do the dangerous work." Beyond that, they agree with the others that the Chines is not managed. Regarding the City of Port Moody's management of the neighbourhood:

The ditches in front of people's houses cause one and two year backups for development of your own piece of property. I'm speaking of a neighbour that has taken three years to basically replace the house that he bought because of the city's inability to provide storm sewers and any coherent type of building plan for people that want to replace their houses. Don't get me going, it makes me sick. Our whole street [Henry Street] doesn't have storm sewers. I believe that St. George does...

The neighbouring house they are referring to is familiar to the whole neighbourhood; it is a corner property on the downhill side of Henry Street and has been in a state of construction, or lack of construction, for a while. The road curves downhill around the property, and without storm drains the street carries all the runoff there. Neighbour 6 can relate to the development issues caused by living in such close proximity to a steep ravine network:

I think the neighbourhood environment should be managed on a case by case basis instead of trying to do a blanket thing that covers all the properties with the building permits and stuff. I suspect that our place would be deemed non-buildable or you couldn't replace this house if we go and ask to rebuild because it's so close to the creek. It's my personal opinion that if the right contractor was found, that anything could be done without endangering the creek, even though creeks like Schoolhouse and the one out by McDonald's have been totally re-routed by large builders. So I don't think the creek needs to be disturbed. Anyway, those are my thoughts on the situation, and I was glad to hear from everybody else. Thank you.

Shared Understandings

The story told by each participant was their own, but different perspectives on similar issues slowly weaved into a shared understanding. I have not experienced this outcome as a researcher with the focus groups I have held in the past. The talk story protocol structured our environment to ensure that the discussion established positive connections between participants and found common ground between differences, with the development of a solution-oriented shared understanding as a result. The success of my neighbours was not a happy accident, or a coincidence that everyone was likeminded. Some neighbours wanted to see more trees cut down, some wanted to see fewer, but their shared solution addressed individual concerns in a way that everyone could agree on. The talk story method shapes the connections that are made between participants in a way that promotes cooperation and problem-solving after acknowledging the issues. This is likely the most academically significant finding of my research. As Marshall McLuhan would say, "it is the medium itself that is the message, not the content ... The content or message of any particular medium has about as much importance as the stenciling on the casing of an atomic bomb." (1969, p.57) The City of Port Moody already makes public engagement efforts, but reconsidering the way they are done is where I believe this research project may contribute the most.

It may be unrealistic to make specific management recommendations to the City of Port Moody based on the contributions of only six of its residents, but the conclusions that my neighbours reach from their shared knowledge of the neighbourhood environment are well informed by personal experience. For this reason, I believe it is important for the city to recognize and act on the significance of the relationship between residents and their environment.

Moreover, although only six of my neighbours participated in this study, there are also only six Port Moody councilors. If it feels wrong to consider the advice of such a small sample size in relation to the size of the community itself, then even more reason to involve neighbourhoods in their own environmental management. Neighbour 5 notes the significance (and potential for disproportionate consideration) of the particular neighbourhoods those council members and other important municipal decisionmakers come from:

We have to take a look at it historically as well. And that is, I think when Port Moody first started everything was around Moody Center, then that was just Port Moody. And then, when I first moved here the most powerful neighbourhood was Glenayre, many of the politicians came from that area, many of the decisions came out of that area, and then maybe a bit with the folks in Pleasantside. Now I think Heritage Mountain is probably one of the areas that has a lot of influence simply because it's a newer area, the people up there have relatively a bit more energy, you might say, and I'm curious about what's going to happen with the more condo development we have, particularly in the Moody Center area - there could be a shift in that regard, but I don't know if people in those

types of buildings are as politically active. So, but I think there's a history here.

Perhaps providing all Port Moody neighbourhoods equal opportunity in providing their input would prevent any perceived inequalities in the distribution of municipal attention.

The shared conclusions that follow provide evidence of how municipalneighbourhood relationships may contribute to improved environmental management at the level of the neighbourhood.

Management Issues

My neighbours have experienced similar relationships with the City of Port Moody. The city is often unresponsive to the concerns brought to their attention by my neighbours, such as for road and trail maintenance mentioned above. They will respond to danger tree calls, but have also been known to disregard them, as in Neighbour 4's experience. Despite frustrations, my neighbours and I are not in a place to diagnose why the city is unresponsive because we are not involved in its management. "If we could just have it better managed by people who know what they're doing, and as far as I can see, the Port Moody workers, they're not onto it, or it's the management - it's probably a management level, I don't know." (Neighbour 3) We can wonder why, but unless Port Moody is able to hold the space for more communication and engagement, resident-municipal relations will remain questionable.

What we can determine from our experiences within the neighbourhood, however, is that communication between residents and the City of Port Moody is poor. Neighbour 1 has coordinated with Metro Vancouver and Port Moody regarding Axford Creek and other environmental issues near their property for years. "There needs to be better

communication and a schedule of exactly who handles what, what's Metro Vancouver, who do we call, what's Port Moody and who do we call. All Port Moody seems to do is shuffle it off to Metro Vancouver."

Neighbour 5 makes a second important point: it takes energy to become involved, energy that is often not met with much response. "I think the thing I find most upsetting is the indifference of some of my fellow citizens. And that's discouraging for people to become involved, it takes a lot of energy to become involved in your neighbourhood in any sense, but I think if it's being discouraged by people who are basically in authority, I find that disappointing." (Neighbour 5) Neighbour 2 indicated their willingness to contribute 10-20 hours annually to help with the trail maintenance that is important to them, but Neighbour 6 said they called the city twice to try to help with trail maintenance and never heard back.

As a researcher, I receive two takeaways from listening to these experiences. The first is that the old rational comprehensive planning model causes friction between my neighbours and our municipality. The notion that professionals should be able to make decisions independently not only invisibilizes my neighbourhood's connection with our environment, as a political ecologist would point out (Anguelovski, 2019), but also my neighbourhood's connection with the municipality. "Literature concerned with civic responsibility/action suggests engagement processes remain insufficient in and of themselves to motivate transformational socioenvironmental change (see, e.g., Parisi et al. 2004; Whelan and Lyons 2005; Head 2007; Johnson and Robinson 2014)." (Mitchell and Graham, 2020, pp.33-34) Ball, Caldwell, and Pranis address this issue in *Doing Democracy with Circles: Engaging Communities in Public Planning:* "Planners must design public processes that lead to an informed debate and that capture divergent interests. Circles are an effective way to do this. They structure the dialogue so that it is

inclusive and respectful; they engage residents; and they build communities. More than this, they fundamentally change planning practices." (2010, p.15) The authors explain that planners often rush into planning before fully understanding the whole story – what both they and I would consider the most important part of the process. (Ball et al., 2010, p.19)

This brings us to the second takeaway: the city would benefit from taking more time to listen and respond to its residents. Two of my six neighbours are willing to volunteer their time to help maintain the trail network behind their houses, another is a stream keeper, and another is an active committee member: "as someone who is about to finish her terms on two different boards, both community based, please don't mention the word board or forming an association or something, because they turn out to be a lot of work and I'm finding not much action at the end." (Neighbour 1) All six of them *still* cared enough about the environment where they live to take the time to sit down and discuss it with me.

The environmental management of our neighbourhood directly impacts our own lives: "One coping mechanism we as planners use is to try to "sanitize" the issues – to strip away the emotional component... Yet to do so is to ignore the fact that emotions often reveal core values that participants in the planning process hold." (Ball et al., 2010, p.21) When my neighbours were provided a respectful, structured space to discuss the management of our shared environment, their values were incorporated into solutions that reflected what was most important to each of them. In the current municipal setting, my neighbours can voice their concerns to Port Moody, but the city ultimately decides whether to act on these concerns. It is common knowledge that this process often results in negative emotion because residents feel unheard. When my neighbours were engaged in the talk story process, they developed a shared solution that reflected their

values, and the resulting emotions were positive. That was not a happy coincidence, it was the result of a structured discussion that prioritized listening to and addressing the concerns of everyone involved.

Fortunately, Appendix 1 indicates that there is an interest from the municipality to address resident concerns. Perhaps the space can be made for more consistent, structured discussions with neighbourhoods regarding the management of their environment.

Neighbourhood Solutions

There were two main aspects of environmental management that we discussed, the water and the forest.

In regard to water, my neighbours discussed concerns of excessive runoff and insufficient drainage – underlined by memories of the most recent flood in 1979.

Flooding occurred to a lesser degree in the basement of a neighbour that lives along Elgin Street, near the path where some of the water from Ottley Creek was directed after it flooded in 1979. Elgin Street is also the hill where all the runoff from Henry Street, having no storm drains, runs down. Additionally, where there is a storm drain for Axford Creek located at the top of Elgin Street (directly uphill from this same house where the basement flooded), Neighbour 1 noted that Metro Vancouver has not cleaned it out for the last two years, although it is supposed to be done annually. Dark and damp backyards weigh on the minds of my neighbours directly bordering the Chines, despite the additional measures taken by Metro Vancouver after the 1979 flood.

Although it has not been effectively communicated to my neighbours, the City of Port Moody has hired multiple third-party consulting firms to assess our neighbourhood over the last decade. In addition to the ISMP submitted by Associated Engineering, Kerr Wood Leidal submitted a "Moody Centre Stormwater Management Servicing Plan" in 2019. This report acknowledges that the stormwater infrastructure in the study area is fragmented, old, and predates current stormwater management standards. (Kerr Wood Leidal, 2019, p.43) Stormwater installation and upgrades, as well as potential creek daylighting and rain garden opportunities, were recommended to the city in 2019, although the changes have not yet been made.

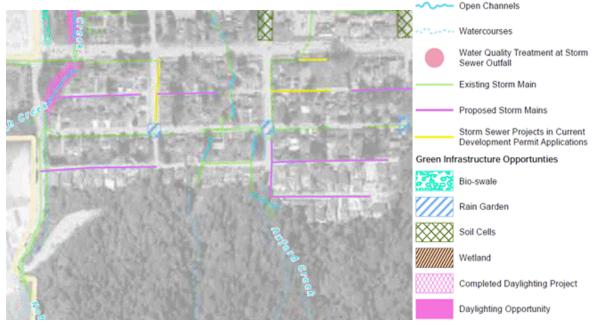


Figure 5. Recommended stormwater management system upgrades and green infrastructure installations. (Kerr Wood Leidal, 2019, p.30)

This example shows how important it is for the City of Port Moody to communicate effectively with its residents; it has initiated the work, but not communicated it effectively to concerned residents.

Furthermore, once the city's contractors do show up to complete work, residents have observed that they are often confronted with more nuance than addressed in their workplans and fall short of what could be accomplished with the input of the neighbourhood:

A lot of things on our street would not have been improved if it wasn't for [Neighbour 6] being out on the street after crews arrived to fix things, after getting complaints. I'll give you two examples; one was a couple years ago when they came to fill in all the potholes that we had complained about, and I know on St. George you had a lot of them at the same time. They came and [Neighbour 6] was watching them, and his background is asphalt as a mechanic, and he told them – the city supervisor – that he hoped he wasn't going to pay the bill for the asphalt work that had just been done because it was no good, it would be falling apart within the year. The guy kind of looked and they fixed it a little bit more, but within one year as he predicted it was useless. So, you know I don't think they hire the best people or the most competent people to do the work.

As he said, we don't have storm drains [on Henry Street], and after the fire truck last year went off the road into the ditch because it couldn't maneuver the ice all over the road, they finally came and did something. Um, but when they came [Neighbour 6] asked if they could put another, showed them another place where it would be more effective to put a storm drain. And finally, after lots of convincing on [Neighbour 6's] part to the city, they agreed. But when they came to do it, they were going to do it wrong, so he pointed it out to the Port Moody supervisor, and he agreed, and so they changed it to the way [Neighbour 6] told them to do it. He also told them to do something else to prevent ice from building up on the road, and they didn't agree so we're waiting to see how that goes.

And the point of my story is not just to brag about how my husband cares about our neighbourhood, but the fact is that if we're not on people when they're in our neighbourhood and asking what they're doing, how they're going to do it, and making sure they follow through, we're not going to have things in a safe way. (Neighbour 1)

Including neighbourhoods in the planning process may save time, money, and frustration. The following discussion of the forest provides additional support for this conclusion.

In regard to the Chines forest, my neighbours discussed concerns of shade, danger trees, wildfire risk, and stream protection. By the end of our talk story, a solution incorporating all these concerns had emerged – a 20 metre buffer zone of smaller trees that mediates our neighbourhood-forest relationship, protecting both the ravine ecosystem and our homes. Recall the last neighbour to speak, Neighbour 6: "I really like the idea that was suggested or maybe I'm just thinking out loud here that there would be a buffer between the houses and the, um, now maybe 20 metres up with different types of foliage." Shorter, sturdier foliage to address shade and treefall concerns, designed with habitat protection and wildfire risk in mind. Neighbour 5 had pointed out that the Chines forest is likely second growth, having been replanted not much earlier than the establishment of our neighbourhood. Third party studies note that the tallest trees of the Chines are reaching maturity and preparing to give way to their undergrowth in the process of ecological succession, "The forests along the northern portion of the project area interfacing with private property should undergo a danger tree assessment and be monitored for risk to public safety. This is particularly true of the deciduous forest types located at Sites 11 [Ottley Creek] to 14 [Axford Creek], where the forest is nearing its climax condition along the interface with private property." (Associated Engineering,

2016, p.3-4) Hence the frequency of treefall; I recall watching from my kitchen window one autumn afternoon as two trees next to Axford Creek fell during a particularly gusty windstorm.



Figure 6. A Photograph I took showing my kitchen window, near the corner of Henry and Elgin Street, across from the Chines. Axford Creek is redirected underground into a storm drain just beyond the yellow caution sign in front of the forest.

Ecological buffer zones have been well established by experts as effective methods for mediating between an ecosystem and nearby human activity. "Conservation planners stress the importance of connecting protected areas through biological corridors and steppingstones (sympathetic habitat used by migratory species) and insulating them with buffer zones." (Dudley, 2008, p.37) For example, the Riparian Areas Protection Regulation (Government of British Columbia, 2019) is one of the main pillars of environmental legislation in British Columbia. Its goal is to protect the riparian zone, the ~30m buffer zone on either side of a river. This municipally enforced provincial

legislation is the main barrier that Neighbour 6 will face regarding any future development plans, since they live within the ~30 metre riparian zone of Axford Creek.

In my experience as a federal government worker, community members are often considered obstacles rather than assets. When I worked for Environment Canada, if my environmental remediation projects were located on or near private land, the landowners were often considered by my team (and all other teams I spoke with) an extra hoop to jump through because we had to communicate with them in addition to multiple regulatory agencies for land access – although private landowners *sometimes* provided useful information. In personal discussions that I have had with city workers, the coordination of private landowners regarding environmental management is often dreaded and sometimes even considered an insurmountable obstacle.

Despite my original perspective as a government employee, when I spoke with my neighbours, the private landowners themselves, they were the most insightful of all in considering how to meet both their own needs and that of their home environment – to the point where they came to the same conclusions that a specialist would (an ecological buffer zone). This experience supports the point made by Ball, Caldwell and Pranis (2010), that in shying away from the community in fear of the high emotions attached to decisions that affect the lives of those involved, the municipality also disregards the most important and informative part of planning processes – those who are directly impacted by the management of their environment.

Although my neighbours and I are not familiar enough with the workings of the city to understand all the reasons behind its poor relations with residents, we know our home environment well enough to come up with solutions worthy of a third-party specialist. My neighbours may not be specialists, but they have a relationship with the

details of their environment that could save the city a lot of time and money in its management. These individuals are interested in the management of their neighbourhood environment because it affects their own lives – not because they will be receiving a big paycheck for their consultation.

Conclusion

Climate change is the result of millions of individual occurrences of environmental degradation. An overwhelming thought in global terms, but manageable at the level of the neighbourhood. Flooding, fire, the protection of the Chines as well as our homes – in discussing our own stories about the environment we live in, my neighbours developed a shared understanding that incorporated all these environmental concerns into a solution tailored to the nuances and complexities of the environment that we live within. Our little neighbourhood talk story may have only covered a few streets, but in broader consideration of our shared findings, I believe it has provided an example of the potential for nested systems of neighbourhood-municipality consultation on environmental management to better care for the environment and respond to climate change, in all its complexity. In other words, reason to involve residents during the decisionmaking process rather than after.

The stories shared by my neighbours have helped me to see that solutions to problems arise from the intentional establishment of healthy relations – not whoever speaks the loudest. Individual concerns turned into collective solutions when we listened to and addressed the perspectives of one another. As a researcher, the talk story has shown me that the structure of a discussion is far more important than the questions we choose to ask, because the environment that we ask our questions within determines the type of relations that we build. If I can create a space that allows for participants to build healthy, positive, healing relations with one another in the context of the issues we are collectively facing, then I have succeeded – regardless of how intriguing our findings are.

The most important thing I learned from my neighbours is that private landowners are not obstacles to overcome in environmental management, they are assets. They are not indifferent, the system is. The system paints a black and white picture of residentenvironment relations based on property ownership and development bylaws, but in reality, the relationship that residents maintain with their environment is so much more diverse. While residents are portrayed by the City of Port Moody as confused over environmental issues and more concerned about their property values, (Morris J. Wosk Centre for Dialogue, 2021) the results of our talk story paint a different picture. Instead of trying to understand the outcome of a planning process that residents were not included in (such as proposed ESA and EDPA updates), we began from a point of familiarity: our relationship with Chines Park. When included in the process rather than being expected to figure it out after the fact, residents displayed an intimate understanding of their environment. Residents care about environmental management in their neighbourhood because they live there. The ecosystems we live within affect our daily lives - for better or worse. We know the environment we live in better than anyone else. While the results of our discussion remain tentative without further involvement from the rest of the neighbourhood, it is clear that with a shared concern for the health of our environment, we can develop our individual perspectives into comprehensive solutions.

I hope that this study will help the voices of my neighbours to be heard.

Moreover, I hope the stories shared between my neighbours and I will help the City of Port Moody to 1) understand the importance of including residents in the management of their neighbourhood environments, and 2) consider the benefits of talking circles. The significance of this study lies in the connections that were made, and the example they set for how the community can be brought into the picture rather than prioritizing an expert-oriented, top-down approach. Residents have relationships with the environment

relevant to planning processes that are currently invisible under the outdated approaches to planning across Metro Vancouver. (Anguelovski et al., 2019) When community engagement is brought into the planning process, rather than added on as a public presentation after the fact, residents are given the opportunity to inform the city of their knowledge rather than feel misinformed and unheard by the independent decisions of the city. The city is also given an opportunity to move beyond its black and white perspective of resident-environment relations and incorporate the diversity of resident experience into environmental management decisions.

The historical context of the term "democracy" is a violent and oppressive one that does not match its abstract ideals of equality. My neighbourhood has only been around for a century, local Indigenous communities have been around for centuries upon centuries. Our municipality, and others, would benefit from taking the time to learn how to reconcile with this in the interest of our shared environment. Talking circles might be a good start. Canada has used the democratic ideal as an excuse for the oppression of Indigenous and other cultures for far too long – but if we were to use different means, inclusive rather than oppressive means, to reach democratic ideals of equality, this story could change. "Clearly, democracy is not the exclusive invention of Europeans. Howard Vogel argues that it might not be any culture's invention but 'a natural response from a human impulse to be connected in a good way.' The challenge is to figure out how to stay 'connected in a good way' when conflict arises." (Ball et al., 2010, p.9) Talking circles can provide the structure to keep municipal-resident relations in a good way.

Talking circle methodologies such as the talk story, underlined by the values outlined by Brant (1990), have the potential to bridge democratic as well as cultural gaps in the way that they enable peaceful communication and cooperation. Traditional rational comprehensive municipal planning processes have been isolated from communities in

the name of objectivity for far too long; talking circles are capable of bridging the gap between municipal-resident relations by providing an ethical structure for the involvement of communities in their own planning.

In recent years, talking circles have received recognition for their benefit to community planning (Ball et al., 2010), but not in specific relation to environmental management. When the shared environment is used as the common denominator for neighbourhood discussion, I believe individuals are able to consider their own wellbeing more clearly in relation to their neighbours — and in relation to the environment itself. As a result of this common denominator, the use of talking circles in the context of environmental management may clarify the reciprocal relations between residents and their environment in ways that a more general community-oriented approach may not. Furthermore, an environmental approach to resident-municipal relations provides the opportunity to acknowledge our disassociation from the environment on a community level — the level where we can most effectively begin to re-evaluate our *shared* relationship with the environment. "The shared stories that structure our society put real limits on the stories I am able to tell myself. But it is through my lifestory that I am able to experience the tremendous power of story. This is where I can make change, and that change can influence the larger stories." (Johnson, 2022, p.17)

Thank you for taking the time to listen to our stories and learn about the Chines.

References

- Absolon, K. (2011). *Kaandossiwin: How we Come to Know*. Halifax, NS: Fernwood Publishing.
- Absolon, K., & Willett, C. (2004). Aboriginal research: Berry Picking and Hunting in the 21st Century. *First Peoples Child & Family Review*, 1(1): 5-17. https://sfu-primo.hosted.exlibrisgroup.com/permalink/f/usv8m3/01SFUL_ALMA5118755205 0003611
- Anguelovski, I., Connoly, J., Garcia-Lamarca, M., Cole, H., & Pearsall, H. (2019). New scholarly pathways on green gentrification: What does the urban 'green turn' mean and where is it going? *Progress in Human Geography*, 43(6):1064-1086. https://doi-org.proxy.lib.sfu.ca/10.1177/0309132518803799
- Arundel, R. (n.d.). Vancouver Density: Investigating current patterns and potential future densification areas. https://ibis.geog.ubc.ca/courses/geob479/classof08/vandensify/introduction.html
- Associated Engineering. (2016). *Chines Integrated Stormwater Management Plan*.

 Vancouver,BC: Associated Engineering.
- Bakker, K. (2007). The commons versus the commodity: Alter-globalization, antiprivatization and the human right to water in the Global South. *Antipode*, 39(3): 430–455. https://doi-org.proxy.lib.sfu.ca/10.1111/j.1467-8330.2007.00534.x
- Ball, J., Caldwell, W., & Pranis, K. (2010). *Doing Democracy with Circles: Engaging Communities in Public Planning*. St. Paul, MN: Living Justice Press.
- Battling the Torrent. (1979, December 18). *The Vancouver Sun*, A1-A4.
- Bevir, M., & Rhodes, R. A. W. (Eds.). (2015). Routledge Handbook of Interpretive

 Political Science (1st ed.). London, ON: Routledge. https://doiorg.proxy.lib.sfu.ca/10.4324/9781315725314

- Borrows, J. (2010). *Canada's Indigenous Constitution*. Toronto, ON: University of Toronto Press.
- Brant, C. (1990). Native Ethics and Rules of Behaviour. *Canadian Journal of Psychiatry*, 35(1):534-539. https://doi-org.proxy.lib.sfu.ca/10.1177/070674379003500612
- City of Port Moody. (2022). 2022-2026 Financial Plan. *City of Port Moody*. https://www.portmoody.ca/common/Services/eDocs.ashx?docnumber=587294
- Dudley, N. (Ed.). (2008). *Guidelines for Applying Protected Area Management Categories*. Gland, Switzerland: IUCN. https://portals.iucn.org/library/sites/library/files/documents/pag-021.pdf
- Estes, N., Yazzie, M. K., Denetdale, J. N., & Correia, D. (2021). Red nation rising: from bordertown violence to native liberation. Chicago, IL: PM Press. https://ebookcentral-proquest-com.proxy.lib.sfu.ca/lib/sfu-ebooks/detail.action?docID=6508878
- Evernden, N. (1985). *The Natural Alien: Humankind and Environment*. Toronto, ON: University of Toronto Press.
- Fainstein, S. S., & DeFilippis, J. (2016). *Readings in planning theory*. West Sussex, UK:

 John Wiley & Sons, Incorporated. https://ebookcentral-proquest-com.proxy.

 lib.sfu.ca/lib/sfu-ebooks/detail.action?docID=7104374
- Gerring, J. (2008). Case Selection for Case-study Analysis. Qualitative and Quantitative

 Techniques. In *The Oxford Handbook of Political Methodology*, 645-684.

 https://doi-org.proxy.lib.sfu.ca/10.1093/oxfordhb/9780199286546.001.0001
- Gerring, J., & Cojocaru, L. (2016). Selecting Cases for Intensive Analysis: A Diversity of Goals and Methods. *Sociological Methods & Research*, 45(3): 392-423. https://doi-org.proxy.lib.sfu.ca/10.1177/0049124116631692
- Given, L. M. (2012). Replication in *The SAGE Encyclopedia of Qualitative Research Methods*. Thousand Oaks: SAGE Publications, Inc.,755-756.
 https://doi.org/10.4135/9781412963909

- Government of British Columbia. (2019). *Riparian Areas Protection Regulation*. B.C. Reg. 178/2019.
- Hardin, G. (1968). The Tragedy of the Commons. *Science*, 162(3859): 1243-1248. http://www.istor.org/stable/1724745
- Hobbes, T. (2000). *Leviathan*. Infomotions, Incorporated. https://ebookcentral-proquest-com.proxy.lib.sfu.ca/lib/sfu-ebooks/detail.action?docID=3314552
- Johnson, H. R. (2022) *The Power of Story: On Truth, the Trickster, and New Fictions for a New Era*. Windsor, ON: Biblioasis.
- Kerr Wood Leidal. (2019). Moody Centre Stormwater Management Servicing Plan.

 (Project No.0310.055) Retrieved from: https://www.portmoody.ca/en/city-services
 /resources/Documents/MoodyCentre_FinalReport_compressed_20191004.pdf
- Kovach, M. (2021). Indigenous methodologies: characteristics, conversations, and contexts. Toronto, ON: University of Toronto Press. https://books-scholarsportalinfo.proxy.lib.sfu.ca/uri/ebooks/ebooks6/upress6/2021-08-05/1/9781487537418
- Latour, B. (1993). We Have Never Been Modern. Cambridge, MA: Harvard University Press.
- Locke, J. (2003). *Two Treatises of Government and A Letter Concerning Toleration* (I. Shapiro, Ed.). New Haven, CT: Yale University Press.
- Maracle, L. (2008). Goodbye Snauq. In West Coast Line: A Journal of Contemporary

 Writing & Criticism. 42(2): 13-28. http://jdyck.weebly.com/uploads/1/9/1/5

 /19153179/goodbye_snauq.pdf
- Martin, C. (1994). *Mi'kmaq Family Migmaoei Otjiosog*. National Film Board of Canada. http://www3.onf.ca/sq/65480.pdf
- McLuhan, M. (1969, March). Playboy Interview: Marshall McLuhan--A Candid

 Conversation with the High Priest of Popcult and Metaphysician of Media.

 Playboy Magazine, 16(3): 53-74. https://web.cs.ucdavis.edu/~rogaway/classes/

- 188/spring07/mcluhan.pdf
- Mitchell, C. L., & Graham, A. (2020). Evidence-Based Advocacy for Municipal Climate

 Change Action. *Journal of Planning Education and Research*, 40(1): 31-43.

 https://doi-org.proxy.lib.sfu.ca/10.1177/0739456X177409
- Morris J. Wosk Centre for Dialogue. (2021). Environmentally Sensitive Areas (ESA)

 Management Strategy Update: What We Heard Report. *General Information*Session and Marine Shoreline Workshop. Burnaby, BC. https://www.portmoody
 .ca/en/recreation-parks-and-environment/resources/Documents/ESA/ESA_

 Management_Strategy_Update_SFU_What_We_Heard_Report.pdf
- Ostrom, E. (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. UK: Cambridge University Press.
- Ostrom, E. [diptherio]. (2014, August 8). *Elinor Ostrom on the Myth of Tragedy of the Commons* [Video]. Youtube. https://www.youtube.com/watch?v=ybdvjvIH-1U&ab_channel=diptherio
- Quastel, N. (2009). Political Ecologies of Gentrification. *Urban Geography*, 30(7): 694-725. https://doi-org.proxy.lib.sfu.ca/10.2747/0272-3638.30.7.694
- Scott, J. C. (2020). Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed. New Haven, CT: Yale University Press.
- Simms, R., Harris, L., Joe, N., & Bakker, K. (2016). Navigating the tensions in collaborative watershed governance: Water governance and Indigenous communities in British Columbia, Canada. *Geoforum*, 73:6-16. https://doi.org/10.1016/j.geoforum.2016.04.005
- Smith, L. (2021). *Decolonizing Methodologies: Research and Indigenous Peoples*.

 London, ON: Zed. doi:10.5040/9781350225282
- ViewPort ArcGIS Web Application. (n.d.) Retrieved March 1, 2023, from https://view. portmoody.ca/portal/apps/webappviewer/index.html?id=bb8dde24dcef4b06b1e6

6c4465a3b80c

- Wilson, S. (2008). *Research is Ceremony: Indigenous Research Methods*. Black Point, NS: Fernwood Publishing.
- Zwick, S. (2021). Suburban living the worst for carbon emissions new research. *The Conversation*. https://theconversation.com/suburban-living-the-worst-for-carbon-emissions-new-research-149332

Appendix A. Correspondence with the City of Port Moody

Although it was not within my original research scope, I contacted the City of Port Moody just before this study was published in the interest of maintaining good relations. I shared excerpts from the final draft regarding concerns over Port Moody's lack of communication, to provide city staff with the opportunity to respond. This is their response:

We try to be as accessible as we can to the public. Our operations call centre is available for phone calls and emails from 7am-5:30pm on weekdays and we operate an after-hours emergency line outside of those times. For urgent/emergency calls we are normally able to reply within a very short time frame (often in less than one hour) and we have a staff member available on-call to return to the City Works Yard and provide a first response to emergent infrastructure issues on our off hours every day of the year. For all calls, we do our best to meet our 24 hour response time to at least acknowledge the call and confirm that we are working on responding to the issue.

It is possible that some of the confusion results from the shared management of the Chines drainage area between Port Moody, Coquitlam, and Metro Vancouver. We are sorry to hear the concerns voiced by the participants in your study and we would welcome the chance to discuss the issues directly with the residents involved to see if we can better understand and address their concerns. (City of Port Moody)

The city wants to address resident concerns. Although my neighbours will remain anonymous and their information will not be shared with the city, hopefully this study has provided useful stories for both the city and its residents to see how relations may be

improved in the future. Both sides desire good relations – municipal staff are our neighbours too.