Participatory Photography as a Means to Explore Young People’s Experiences of Water Resource Change

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Abstract

This paper highlights experiences from a participatory photography project undertaken with high school students in Fort Resolution, Northwest Territories. Working with local teachers, the project linked environmental change research with classroom-based curriculum objectives. The project explored the relationships young people have with their lands and waters, and documented their experiences of water resource change. Incorporating young people’s perspectives is a critical avenue for research because they have important observations in the here and now, and are future scientists and community leaders. As such, young people can play a key role in water decision-making in the territory. Engaging young people as active co-producers of environmental change knowledge in a research context requires unique and creative approaches. Participatory photography offers a means for expanding the current suite of tools to explore the relationships that young people have with water and place.

Findings show that young people are keenly aware of how their waters are changing, and that they are concerned about the effects of these changes on engagement in land- and water-based activities. Outcomes and lessons, including the importance of student voice, flexibility and adaptability, and establishment of school-researcher relationships, are highlighted. The goal of this paper is to encourage researchers and policy-makers to expand their suite of tools for exploring person-place connections and to consider the important observations and experiences of young people in development of policies for use and protection of water.

Introduction

The relationships that people have with places are important and meaningful. ‘Space’, which is empty and blank, becomes ‘place’ when people endow it with meaning (Tuan, 1977). The ways in which people use and relate to place can have implications for health and well-being, identity and collective action (Fresque-Baxter & Armitage, 2012). Understanding how people relate to place and how these relationships inform action, behaviours and adaptations in place is important for developing policy and actions that are contextually appropriate (Relph, 2008). There is no ‘one-size-fits-all’ water policy; the values, relationships and experiences of people in a particular place can influence policy acceptability, uptake and effectiveness, and as such should be considered in policy development (Relph, 2008; Gregory & Wellman, 2001; Eden, 1996). However, the relationships people have with place(s) are intimate, and such relationships are not always easily verbalized (Proshansky, 1978). Therefore, we need to expand our suite of tools beyond traditional research methods, to incorporate creative, visual and experiential methods that explore and illustrate the meaningful connections that people have with place in an effort to capture such nuanced relationships.

Young people are an important group that can contribute to the production of knowledge for environmental change research. Young people are not only the future scientists and community leaders...
that will play a key role in water governance, but they also have important observations and insights about water stewardship in the here and now. They have real-time knowledge about their lands and waters, and concerns about changes that are happening in and around their communities and special places. It is therefore crucial to recognize young people as active citizens with important viewpoints in the broad, global discussion of water stewardship, with experiences and views that will contribute new insights into dialogue surrounding climate change and environmental degradation. As such, young people’s perspectives should be incorporated into environmental research and development of policy solutions for water.

In the Northwest Territories (NWT), participatory dialogue and decision-making in water stewardship is a policy direction outlined in *Northern Voices, Northern Waters: NWT Water Stewardship Strategy* (GNWT & Government of Canada, 2010). Furthermore, the inclusion of young people in water stewardship has been identified as a one component of actions for achieving this (GNWT, 2011). Specifically, in the *NWT Water Stewardship: A Plan for Action 2011-2015* (the implementation plan for the Strategy) one of the keys to success identified is to “develop community capacity to strengthen community involvement in water stewardship activities, including education, training, and research and monitoring programs” (GNWT & Government of Canada, 2011, p. 8). One of the associated objectives is to “use workshops and other means to share experiences and adopt best practices through community engagement, involving youth and elders” (GNWT & Government of Canada, 2011, p. 8). Young people have been involved in World Water Day activities and have attended meetings related to community-based monitoring, and work that engages young people in water stewardship is planned for the next year with additional opportunities being explored for upcoming years (E. Kelly, pers. comm., October 2012). Engaging young people in water-focused research constitutes an additional forum for contributing to broad water stewardship objectives.

Engaging young people as active co-producers of environmental change knowledge requires unique and creative approaches. Participatory photography, as a method, offers a means for addressing this need for new tools to explore and understand person-place relationships. Furthermore, using photography as a method for exploring meaning and change creates opportunities for young people to engage in knowledge co-construction with researchers in a way that is ‘young-person centric’ and perhaps more enjoyable and creative than traditional research methods.

This paper then, is a reflection on the use and value of participatory photography as a method to explore the connection that young people in the community of Fort Resolution, NWT, have to their lands and waters. The photography project was one portion of a larger research project on changing water conditions, and it was identified at the outset that young people in the community had important insights to contribute. Through a description of the project’s development, emphasis is placed on the utilization and integration of participatory photography in classroom-based settings, while presentation of student photos and writing highlights student concerns and experiences. Outcomes and insights from the process are offered, with the hopes of inspiring others to consider not only how participatory photography may be utilized in other places, but also the important voice that young people have with respect to their lands and waters and how they are managed.
The participatory photography project was conducted with high school students in the community of Fort Resolution, NWT. Fort Resolution is a Dene-Métis community located on the southern shores of Great Slave Lake, with a population of roughly 485 (see Figures 1a and 1b) (Wesche & Armitage, 2010). Fort Resolution is comprised of “interconnected, kin-based groups, most of whom share a joint cultural history” and many community members have “knowledge about, and strong intergenerational ties to the surrounding traditional land-use area” (Wesche & Armitage, 2010, p. 108 & p. 109). Many young people learn about the land through time spent with family members and older generations, community culture camps and school-based activities.

Water is of fundamental importance to the community. In particular, the Slave River and Slave River Delta are used by community members for cultural, recreational and subsistence purposes. The high degree of biological productivity in the Slave River Delta and the availability of resources have made this area an important node for community livelihoods for generations (Wesche & Armitage, 2010; Wolfe, et. al., 2007). Part of the population continues to use the area for traditional livelihood activities (Wolfe, et. al., 2007). In Fort Resolution, many changes to the watershed have been observed by community members in recent years, with many identified as negative (Wesche & Armitage, 2010). These changes can make it difficult for people to continue to participate in land-based activities (Wolfe, et. al., 2007). It is important that community concerns – including those of young people – are incorporated into discussion and planning at multiple levels.

*Figure 1a – Research Context: Study Area Location in Canada (Map: P. Schaus)*
Participatory photography as a means of exploring young people’s experiences of place and change

Photography as a research technique is not new (Kaplan, Miles & Howes, 2011; Castleden, Garvin & Huu-ay-aht First Nation, 2008). It has been variously called Photovoice, photo-narrative, participant-employed photography, photo novella and community photography, with each having different approaches and implications for research (Kaplan, et. al, 2011; Castleden, et. al., 2008; Wang & Burris, 1994). Participatory photography, broadly defined, is a qualitative research method whereby participants personally document their lived experiences through photography, for the purposes of engaging in critical thought and discussion and promoting social change (Kaplan, et. al, 2011; Goessling & Doyle, 2009; Gotschi, Delve & Freyer, 2009; Castleden et. al., 2008; Strack, McGill & McDonagh, 2004; Wang & Burris, 1997; Wang & Burris, 1994).

In participatory photography, emphasis is on “the active role of participants in the generation and interpretation of photos” and on use of the approach “as a research method that hands over the cameras to people” (Gotschi, et. al., 2009, p. 293). It moves research from an outsider’s perspective towards an emic perspective, where it is the participants themselves who take the photos and provide the narrative of what the photos represent (Gotschi, et. al., 2009; Strack, et. al., 2004). The purpose of taking and

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analysing photos can range from providing an “objective record of participant experience” to being used as an emancipatory tool to give voice back the ‘the researched’ in an effort to attempt social and political change within communities (Gotschi, et. al., 2009, p. 293; Strack, et. al., 2004; Wang & Burris, 1997). Participatory photography allows individuals the opportunity to tell their own story using photos as a visual means to represent themes, though even with pre-identified research themes, it is up to the participants to determine where, when, and of what, to take photos (Gotschi, et. al., 2009). As the stories come from participants themselves, their voice is reflected in the research. The method is primarily oral and visual, and is accessible to a wide range of audiences because it addresses non-traditional literacy skills (Kaplan, et. al., 2011; Castleden et. al., 2008).

Figure 2 - Steps in Building the Photography Project (Summary)

As indicated earlier, the photography project was part of a larger qualitative, exploratory case study on the importance of person-place relationships with respect to water in Fort Resolution, and the impacts of changing water conditions on such relationships. Building on the above foundations, the goal of this
particular part of the project was to open up the research to young people and allow them to share their experiences of water resource change with their voice. As noted earlier, person-place relationships can be difficult to describe. Using photography to foster dialogue represented an appropriate mechanism for engaging young people about their connections with water and place(s), in a creative, visual, and experiential manner. Figure 2 is a visual depiction of the process followed. Key aspects of the process are elaborated on below.

At the outset of the project, I met with the principal and teachers at Deninu School to discuss opportunities to engage students in a photography-based project. The original plan was a voluntary project for ten high school students. During these initial discussions, school staff identified that the photography-based research project could be modified to fit existing curriculum objectives. They also noted that integrating the photography project into classroom curriculum presented an opportunity for students to learn about water research and engage in the project as knowledge co-producers. Thus, our project was born, and we decided to run a photography-based program in the Grade 7-8 class during the fall term and in the Grade 10-12 class during the winter. The necessary equipment was provided to the school, including ten digital cameras and a colour photo printer. Following completion of the project, all materials were donated to the school for their continued use.

All students in both classes had opportunity to participate in the photography activities in the classroom, and had the choice of what (if anything) they wanted to share as part of the research portion of the project. Such an approach meant that the project was inclusive at a classroom level, and that the students could exercise agency in choosing to contribute their knowledge to the research if they so desired. The remainder of this paper will focus on the experiences working with the Grade 10-12 class.

In the Grade 10-12 class, five students (out of roughly 12) agreed to contribute their work to the overall research project and to share their work through a variety of other public mechanisms (such as research papers, newspaper articles, etc.).

From my experience working in the classroom, there is diversity in how the students engage with land-based activities. Many of the students spend time on the land, whether regularly or intermittently, and some do not spend much time on the land. Some spend time on the land with their families, while some engage in more peer-based activities with friends. For some students, activities are more traditional or subsistence based, while others utilize the land more recreationally. As evidenced in the student stories in the subsequent section, many of the students have important relationships with their lands and waters, and have observed and are concerned about changes happening in places that matter to them. It is important to note though, that not all students who took part in the project identified having land-centric relationships (this is discussed below in ‘Outcomes and Insights’).

Over several meetings, I worked collaboratively with the teacher to develop an appropriate and engaging photography-based curriculum. The photography project was linked with the existing social studies unit, which at the time was focused on concepts of nationality, identity, and Indigeneity. We developed a curriculum which involved looking at how young people in the class identified as being ‘from the north’ and how the land and water in and around their community contributed (or did not contribute) to that identity. It would also examine what changes meant for the young people, in terms of
their experiences on the land and water. Two broad questions were developed to guide classroom related activities:

1) *In what ways are land and water important to you?*

2) *What changes have you seen on the land or to water in your community and how do these changes make you feel?*

A series of classroom-based activities were implemented to encourage students in creative writing, brainstorming, group discussion and critical thinking about identity, nationality and land and water. Students were then provided with the digital cameras to begin documenting their experiences of water in their everyday lives. Students also had opportunities to participate in field trips around the community. The culminating task for the unit was the development of a photo essay, which showcased photos that expressed their feelings about land and water and their concerns about change. Students had a number of options for selecting and including photographs in their final essays. They could utilize photos taken during one of the class field trips, they could take photos on their own time outside of class, or they could use their own existing photos. In order to meet curriculum objectives, a writing component was added, and students used the writing to supplement the photos as a story-telling medium.

Following completion of the photography project essays were first axial coded using sensitizing constructs associated with sense of place and place identity, including sense of belonging, social connections, and rootedness, among others (please see Fresque-Baxter and Armitage, 2012, for a review of these constructs). Secondly, essays were open-coded to allow for emergent themes and constructs associated with these students’ specific place-based relationships. Throughout analysis, photos were analyzed in the context of the accompanying essays; the images the students chose to include in their essays are linked to the things they chose to write about and depict their written ideas in a visual manner.

**Student stories of water and the land**

In this section, three student photo essays are presented. As the goal of this project was to provide students the opportunity to share their experiences and present their voice, the essays are included in their entirety, with minor editing for clarity where necessary. At the conclusion of each story, a brief analysis of the photo essay, from my perspective as a researcher, is offered. The analysis contextualizes the photo essays within a place-identity perspective (see Fresque-Baxter & Armitage, 2012), highlighting some key place-based constructs that emerge within each work. Each story captures connections to water and place(s) and observations of changing water conditions.
Paul Boucher Jr’s Story

The land and water is very important to me. I use the land quite often. The land is very special to me. It’s where the people came from. As I was growing up, people always told me to respect the land. Treat it with pride. As a land user I have seen changes on the water. The water level has dropped lots within the decade. Another concern I see is we are finding fish with abnormalities. These changes have a great impact on our community. A traditional food is getting destroyed because [of] all these changes.

Photo 1 (Photo Credit: Paul Boucher Jr.)
I love going out onto the land. I learn something new every time I go out on the land, either its traditional routes or survival skills. I’ve been out in the bush in all four seasons and every season is a different experience. One of the best parts about going on the land is the traditional foods. Right from moose meat to the berries. Why I go in the bush is to get away from town and also just to be out in the bush. There’s always something to do out in the bush.

For Paul, being out on the land and water is something very important to him. He travels out in every season, and is always learning something new, which is something that he identifies as a key part of his experience. This represents ‘environmental skills’, a key place identity concept, which reflects an individual’s ability to know, use and read a place (Proshansky, Fabian & Kaminoff, 1983). The importance of travelling and learning traditional routes is something Paul identifies in his writing, and in Photo 4 he captures this idea through snowmobile tracks on the frozen river. Tradition, culture and
heritage emerge strongly in Paul’s work, reflecting the idea of ‘rootedness’ (a deep attachment or feeling of being at home in a place that often stems from long-term habitation [McAndrew, 1998; Tuan, 1980; Relph, 1976]), as well as a ‘sense of belonging’. Additionally, Paul is keenly aware of the changes that are happening to the land and water, particularly their impact on traditional food, something that is important to both him and his community.

Ashley’s\(^1\) story

*Why are water and the land important to me and my community? The wilderness is important because we can go hunting there, some animals that we enjoy hunting is ducks, geese, moose, muskrats, beavers and caribou. There are some good spots to go and hunt geese and ducks. Hunting for ducks is my favorite thing to do mostly because I get to wear waders, they are a type of rubber boots they go up to your thighs so you can walk in low waters and not worry about getting wet.*

*Photo 5 - Example of a place to go hunt a duck, they are often in little ponds (Photo Credit: Ashley, Deninu Student)*

\(^1\) Pseudonym
on the water but unfortunately now days most of the channels are drying up, the water is really low. It sucks because there are some places I have never been before and I don’t know if I will ever get to see how it looks. We like to go fishing too, it is a great activity that we do often in the summer time. I just love the land and showing of my traditional ways, I always have a great time. If you haven’t been out on the land I suggest that you go because it is so worth it.

Photo 6 – This is a photo of the frozen lake (Photo Credit: Ashley, Deninu Student)

For Ashley, the land and water are a place to get out hunting and to spend time with friends relaxing and enjoying everything around her. ‘Social connections’ are often an important aspect of place identity and person-place bonds (Fresque-Baxter & Armitage, 2012; Cuba & Hummon, 1993). ‘Aesthetic and experiential’ aspects of the land (constructs that shape place identity) are identified by Ashley as a key part of her relationship with the land. Photo 5 depicts a place related to one of her favourite experiences, a little pond where one could commonly find ducks, one of her favourite things to hunt. ‘Rootedness’, through the love of showing traditional ways, is also expressed in Ashley’s work. Changes to the water, and the related impacts, come across very strongly in Ashley’s work. She describes losing possible opportunities to go to places she has never been; continued water resource change may prevent her from ever travelling to these places.

Myranda Calumet’s Story

The water and land are important to me, because I could go hunting and learn my traditional ways on the land. This is part of my life because of my parents/grandparents went hunting and lived off of the

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2 As one of the goals of participatory photography is to allow participants to determine their own path through the project, some students, like Myranda, chose to focus on writing.
land. I wouldn’t mind on taking the tradition from my parents and then when I learn everything I could and then I could pass it on to my kids when I have kids. The water and land are important to our community because that’s where we get our drinking water and our water is our way of living. The land is important to our community because we can go out in the spring, fall and go hunting for our food so we don’t have to spend so much money on the food from the store.

My specific place is Little Buffalo River; it is important to me because I am there almost every weekend [either] hunting, fishing or even trapping. I like being out on the land because I am away from town and it is quiet out there and I like the peace and quiet. What I like about being out on the water is I can go hunting for duck, geese and other types of birds that we could eat; I also like the water because I can go fishing and/or set nets. I think the land and water are changing, like the water is dropping, it like dropped a lot within the past few years. It is important to me because the water is the source of going out on the land like hunting for moose and caribou and we also use the water so we can go fishing. Our land is a nice and beautiful place to go, I would suggest you go out to Simpson Island or even Taltson River.

Like the other young people, connection to heritage is important to Myranda. The places she travels to are the places where her parents and grandparents lived off the land. Through these heritage connections she has developed a deep attachment to these places, reflecting ‘rootedness’. She describes her wish to learn from her parents, so that she too may be able to one day pass on knowledge to her children, further emphasizing the role and importance of heritage and maintaining traditional ways. For her, water is the main means of access to the land, and the declining water levels pose a threat to the activities she enjoys, as they may create challenges in accessibility to places for hunting and fishing. This can potentially disrupt ‘continuity’ of place, another key construct which shapes person-place relationships (Fresque-Baxter & Armitage, 2012; Twigger-Ross & Uzell, 1996).

Outcomes and Insights

Overall, water and the land are important for the young people, in terms of who they are and what they gain from spending time in places that are important to them. All three students identified elements of rootedness - the importance of feeling connected to tradition, heritage and culture is clearly evident, and there is a high degree of sense of belonging on the land identified. Also evident is the great degree of learning that the young people experience while on the land, reflecting the role of environmental skills in shaping person-place bonds. It is also clear that young people are keenly aware of the changes that are taking place in the region, and have concerns about how these changes affect not only them, but their whole community, now and into the future.

There are many outcomes and lessons from this project that can be shared with teachers, researchers and policy-makers. This section will address three key outcomes and lessons that emerged from this
project: 1) opportunity for providing young people’s voices; 2) the importance of adaptability and flexibility; and, 3) relationship building between researchers and schools.

**Young People’s Voices**

Canada has obligations to implement the United Nations (UN) Convention on the Rights of the Child, including the right for young people (defined as those under 18) to participate and to both receive and share knowledge (Office of the United Nations High Commissioner for Human Rights, online, 2007). Providing young people with a voice in research and policy discussions offers a potential way of contributing to these obligations. Young people have valuable, contemporary knowledge and can contribute to decisions for the use and protection of water. As such, they should be encouraged to think about how water quality and quantity may be changing in and around their communities, what changes may mean for themselves and for their communities, and what they can do about it now and in the future. It is important to give them a space to share their voice with others. Involving young people as co-producers of environmental knowledge allows them the opportunity to see themselves as researchers, engage as active learners and be important contributors to discussions about water use and protection. In this project students were consulted as experts on their own lives and on the places that matter to them. The project was an opportunity for students to express their feelings, thoughts and concerns about water in the area, in a way that was hands-on, and promoted creativity and multiple styles of learning. The photos were the catalyst for the students to verbalize their feelings in the written component.

Adolescence is a time when young people are determining who they are personally and socially, and how these identities play out in everyday experiences and interactions with others (Strack, et. al., 2004). According to Strack et. al. (2004, p. 50), young people should have “opportunity to build and confirm their abilities, to comment on their experiences and insights, and to develop a social morality for becoming a positive agent within their community and society”. Participatory methodologies, such as photography, allow young people to share their experiences and have these recognized and valued by their peers, teachers, parents and communities, contributing to confidence, self-worth and development of identity (Strack, et. al., 2004). We continually affirmed with students that their experiences and opinions mattered and that this was a chance to have their voice contribute to an overall research project that was focused on importance of place and impacts of water resource change. This continual affirmation is critical in this type of project.

One of the other identified goals of participatory photography is to encourage social change, through raising collective consciousness and sharing outcomes with wider audiences, including policy-makers (Wang & Burris, 1997). For example, following completion of the project, a regional newspaper published a story about the photo project, which included a number of the student’s photos. This paper is another means of sharing student’s experiences with a wider audience. Additional opportunities for sharing their work with a broader audience are under consideration, and the school continues to explore ways of using the photos for school and community-based projects.

**Flexibility and Adaptability**

Participatory photography is often presented as a ‘fixed method’ (Castleden, et. al., 2008, p. 1401). However, flexibility and adaptability played a key role in effectively integrating a participatory research
method into existing classroom curriculum. It is important for researchers considering this type of methodology to be open and willing to change their approach when necessary. Had this project not been adaptable to changing circumstances, it is likely that it would not have worked as effectively. Originally, this project was to be conducted on a voluntary basis, but opportunities to develop a classroom-based project emerged, and the project was adapted to meet the needs of both the school and the research. This collaboration proved to be a large contribution to the success of the project. Retaining long-term participation would likely have been a challenge; conducting the project with the school as part of the everyday school curriculum provided a stable site for the project, which can lessen participant attrition (Strack, et. al., 2004). Additionally, specific changes to the methodology were made to meet the needs of the students, teacher and the school. For example, while other researchers (e.g., Castleden, et. al., 2008; Strack, et. al., 2004) have done interviews, including audio-recording of interviews, it was determined that this would not be appropriate for this particular project. This is not to say these methods are inappropriate or ineffective overall, rather they were not right for this project. It was felt that students would be more comfortable with informal, non-recorded discussions before developing their final product, and writing of essays to express themselves individually. The written portion provided students a safe and comfortable place to share their experiences. Additionally, the written component was important for identified curriculum objectives.

Finally, though the overarching theme was the importance of land and water, upon reflection this limitation of the topic seemed restrictive. The project’s theme was opened up to include other possible topics to allow students who do not spend time on the land equal opportunity to share their experiences and have these valued. All students were given the opportunity to determine what reflected their idea of identity and how they experienced their everyday life, whether that was on the land or in the community. Additionally, while the project was photography based, students also had opportunity to provide different types of final products, whether a written essay, video or art.

**Fostering Relationships between Researchers and Schools**

One of the greatest outcomes of this project was the establishment and maintenance of a strong, collaborative partnership. The Department of Geography and Environmental Studies at Wilfrid Laurier University (the institutional base for this research project) has had a long and favourable relationship with Deninu School. At the time of this project however, there were new staff at the school and I was new to the community, so we worked to (re)establish this relationship. Building relationships between schools and researchers requires fostering of mutual trust and reciprocity, and ongoing dialogue. Teachers know their students and are the foremost resource on what will – and will not – work in their classroom. In this regard, it is important for researchers to collaborate with teachers on the most effective approaches to bringing photography in the classroom. Throughout the project I worked closely with the teachers to develop a photo-based program that addressed the needs of the students and specific learning outcomes grounded in current curriculum. At the same time, the teachers and staff were open and willing to incorporate participatory research methods into their classroom and worked to ensure that the program would yield appropriate results for the overall research project. This reciprocity between researchers and school staff helped to build a positive, trusting and hopefully long-term relationship.
**Conclusion**

Places matter to people. In Fort Resolution, NWT, water is a fundamental component of place and important for many reasons. Community members – including young people – have meaningful relationships to water that must be considered in decision-making for its use and protection. However, exploring and capturing place can be challenging as such relationships are intimate and difficult to verbalize. Embracing participatory research methods, such as photography, can expand the suite of tools available to researchers and policy-makers. Additionally, researchers and policy-makers should also consider ways to engage young people as active contributors to decision-making around water. As current knowledge holders and future leaders in their communities, young people have an important role to play, both from sharing their experiences and learning from other stakeholders.

This paper was a reflection on developing a participatory classroom-based photography project for young people in Fort Resolution, and the use and value of such an approach for exploring and understanding young people’s connections to water and place. In Fort Resolution, many young people have strong connections with water and place, and are keenly aware of the changes that are happening all around them. Integrating participatory photography into school curriculum can be challenging. This project modified and adapted existing principles for photography as research method to meet the needs of students, teachers and ensure contribution to learning outcomes. This project established and fostered a relationship of mutual trust and reciprocity between myself as a researcher and the staff at Deninu School. Overall, one of the important facets of this project was the opportunity for students to begin thinking critically about their role in their communities and what water meant to them. Hopefully, some were inspired to think about the roles they can, and will, play in water-focused decision-making in their community and in the broader Northwest Territories.

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