A PARALLEL APPROACH TO WATER STEWARDSHIP PLANNING: MAKING SPACE FOR TRADITIONAL KNOWLEDGE AND WESTERN-SCIENCE

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Résumé

La pratique professionnelle de la planification occidentale et ses mécanismes, contrôlés par l'État, n'offrent peu de ressources et d'outils pour améliorer la vie des peuples autochtones et leurs communautés. Il apparaît alors que la planification occidentale et ses outils juridiques reproduisent les relations coloniales existantes dans l'intérêt de la domination de l'État sur les peuples autochtones et de leur suppression. Cet article, décrit un modèle de planification différent. celui que « Viswanathan » appelle « planification parallèle ». Ce modèle introduit les principes de planification autochtones en parallèle avec ceux de planification occidentale. Ainsi, chaque approche informe et complète l'autre. Notre analyse est basée sur un exemple de cas, soit le Delta de la rivière Saskatchewan, où les valeurs autochtones, imbriquées dans les connaissances traditionnelles des terres et de l'eau, sont la pièce maîtresse d'un processus de planification soutenu par le cadre scientifique rationnel de l'Ouest. Les défis auxquels est confrontée cette approche de planification parallèle seront discutés en même temps que des suggestions sur la manière de surmonter ces défis.

Mots-clés: planification de la gestion des eaux; planification autochtone; Delta de la rivière Saskatchewan; Canada

Abstract

The professional practice of planning and the state-controlled mechanisms under which western-science planning operate offer little to improve the lives of Indigenous people and their communities. Arguably, western-science planning along with its many legal tools, collectively reproduce existing colonial relations in the interest of state domination over, and suppression of, Indigenous people. In this paper, we describe a different planning model, one that Viswanathan (2019) refers to as “parallel planning”, wherein Indigenous planning principles are practiced in parallel to western-science planning, with each approach informing; and complementing; the other. Our case example is from the Saskatchewan River Delta wherein Indigenous values nested in traditional knowledge in the land and water are the centrepiece of a planning process supported by the western-science planning framework. Challenges facing this approach will be discussed alongside suggestions on how these challenges may be overcome.

Keywords: water stewardship planning; Indigenous planning; Saskatchewan River Delta; Canada

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1.0 INTRODUCTION

Indigenous communities in Canada continue to be negatively impacted by upstream water resource and land use development activities (McGregor, 2012, 2014; Basdeo & Bharadwaj, 2013; Baijius & Patrick, 2019a). Current water resource planning and management approaches nested in western-science offer little space for Indigenous engagement, resulting in lost opportunities for collaboration, partnership and reconciliation (Castleden et al., 2017; Baijius & Patrick, 2019b). As a consequence, land use planning practices in Canada and other colonial states have mostly served to reproduce colonial relations nested in conflict and mistrust between settler-state actors and Indigenous communities (Lane, 2006; Arsenault et al., 2018).

We observe this condition on three levels. First, western-science planning policies and practices continue to be applied to landscapes that have long constituted traditional lands of Indigenous occupants. Land surveys to privatize land and Crown ‘ownership’ of land did not displace, nor remove, Indigenous rights and title to land (Lane & Hibbard, 2005; Matunga, 2013; Krasowski, 2019). Second, by privileging legislated policies and procedures of the state, modern planning consistently excludes well established Indigenous planning practices (Porter, 2010; Arsenault et al., 2019; Viswanathan, 2019). Third, despite a decade of legal precedent, consultation and engagement with Indigenous communities remains the exception rather than the norm when it comes to land and resource planning in Canada (Porter & Barry 2016).

In the Canadian province of Saskatchewan, for example, provincial watershed plans completed under the authority of the provincial government (2007-2013) fail to meaningfully engage Indigenous people despite Supreme Court of Canada (2004) rulings that the Crown owes a duty to consult Indigenous people on matters affecting treaty or Aboriginal rights (Viswanathan, 2019; Baijius &

Patrick, 2019b).

The absence of Indigenous consultation in watershed planning in Canada is a lost opportunity not only for collaboration, partnership and reconciliation, but also for advancing professional planning practice. The process of planning on a watershed-scale has great potential to alter the landscape through integrated policy interventions, landscape management, land and water use designations, and more. Including Indigenous peoples in watershed planning is a fundamental precursor to reconciliation and environmental justice (Jackson, 2018; Zwarteveen & Boelens, 2014).

In this paper we reflect on a water stewardship planning process for the Saskatchewan River Delta (SRD) that started in 2014 and continues to engage Indigenous Peoples (First Nations and Métis) from the community of Cumberland House, Saskatchewan. The absence of a government-sanctioned watershed plan for the SRD, combined with upstream development activity, motivated this planning process. It brought together university researchers trained in western planning practice and community members whose lives and livelihoods remain tied to traditional land use practices including wild-food gathering, trapping, guiding and traditional culture.

We begin with a brief description of water governance in Saskatchewan followed by an overview of the bio-physical and cultural importance of the Saskatchewan River Delta. Next, we outline the rationale for a planning process undertaken with the community of Cumberland House, Saskatchewan. Lastly, we reflect more generally on the opportunities and challenges facing a ‘parallel’ planning process, one that embodies both Indigenous knowledge and western-science, and introduces a transformative approach to professional planning practice in Canada.

1.1 WATER GOVERNANCE IN SASKATCHEWAN

In 2002, the Saskatchewan provincial government created the Saskatchewan Watershed Authority (SWA), a Crown corporation, in response to a major drinking water contamination event that occurred in North Battleford, Saskatchewan. Soon after its creation, the SWA (renamed the Saskatchewan Water Security Agency in 2012) commenced the development of watershed-based source water protection plans as a means of safeguarding public water supplies. In a relatively short period of time (2007-2014) a dozen of those plans were created for the 27 major watersheds in Saskatchewan (see Figure 1).

Baijous and Patrick (2019b) report an absence of Indigenous consultation and engagement throughout the development of these watershed plans. In addition, the completed plans are concentrated in the southern, more populated, watersheds of the province. In the central and northern watershed regions, predominantly occupied by Indigenous Peoples (First Nation and Métis) and where resource development and extractive industry predominate, there is an absence of watershed plans (Lemoine & Patrick, 2014). Arguably, after decades of uranium mining, water diversions, dam construction, forest harvesting and climate change impacts including increased wildfires and seasonal flooding, these northern watersheds of Saskatchewan are the areas most in need of planning. The community of Cumberland House is located in one of those watersheds, the Saskatchewan River watershed.

1.2 SASKATCHEWAN RIVER DELTA

Located in northeast Saskatchewan, Cumberland House is Canada's oldest occupied settlement and home to Indigenous peoples and culture. The Saskatchewan River Delta (SRD) has a rich history of human occupation and brings significant economic, cultural and ecological heritage to Saskatchewan and Canada. For the purpose of this paper, Cumberland House, Saskatchewan, encompasses the community on Spruce Island near

the middle of the SRD. There are three distinct political entities in the community: the Northern Village of Cumberland House, a municipal village regulated by the incial government; Cumberland House Cree Nation; and the Métis Local 42.

Spanning two Canadian provinces and 10,000 square kilometers, the Saskatchewan River Delta (SRD) is North America's largest inland delta. Most of the water feeding the delta originates in the Rocky Mountains and is contained in the Saskatchewan River watershed ,draining an area larger than Germany. The delta is historically significant in Canada with a diversity of First Nation, Métis and European culture and a once vibrant international fur trade economy. In 1774, Samuel Hearn established the first European settlement at Cumberland House which quickly became a critical fur trade enterprise for the Hudson Bay Company in North America.

The SRD has provided sustenance to Indigenous peoples since its formation over 10,000 years ago, after retreat of the Laurentide Ice Sheet. Today, approximately 15,000 people live in and around the SRD, mainly in the Northern Village of Cumberland House, Cumberland House Cree Nation, Opaskwayak Cree Nation, The Pas, Moose Lake, Red Earth Cree Nation and Shoal Lake Cree Nation communities (see Figure 2). The SRD is also home to a wide variety of mammals and fish and is a critical staging and breeding ground for migratory birds (Patrick et al., 2018). The SRD provides an important wetland ecosystem that purifies water and nourishes animals and people.

The delta ecology, fed for millennia by organic sediments in the Saskatchewan River, sustained not only rich biota but also human culture, trade, employment and lifestyle. This intricate, and interdependent, human-nature relationship was disrupted in the 1960s by upstream water resource development that altered natural patterns of flow and sediment delivery into the SRD. These developments included the E.B. Campbell Dam and powerhouse, located approximately 110 kilometres upstream of Cumberland House, and the Gardiner Dam, 425 kilometres upstream on the South

Figure 1. Completed watershed plans, Saskatchewan, Canada (Water Security Agency)

Figure 2. Saskatchewan River Delta

Saskatchewan River. Construction of the E.B. Campbell Dam formed Tobin Lake, a large reservoir to provide peak power supply into the Saskatchewan power grid. In 2004, a minimum flow release of 75 cubic metres per second was established; prior to this date, river water flow could be fully cut-off to the SRD and to the people living downstream. Questions about fair, open and meaningful engagement by the dam operator, SaskPower, remain unanswered in the community of Cumberland House, with community members concerned about the timing and amount of water release from the dam, sediment entrapment behind the dam, dam safety and related biophysical impacts on the delta environment (Patrick et al., 2018).

Over the past century, upstream development, including irrigation and hydroelectric projects have contributed cumulative impacts to the delta. For example, average flows in the Saskatchewan River through the delta have decreased 20 percent over the past 100 years resulting in reduced ‘natural’ flood frequency (Sagin et al., 2015). Community members have consistently voiced their concern that changes in water flow through the delta have had detrimental impacts on the delta ecosystem. Muskrat, moose and migratory wildfowl populations have declined because of water flow, and water level, reductions. Invasive weeds now dominate delta waterways. Economic loss from these ecological impacts extend to local outfitters

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and guides across the region, resulting in diminished economic opportunities for the province. In the words of one community member: *“The delta is suffering. It has been suffering ever since the dam went up. The delta needs our help, the water and animals need our help. We just can’t sit here any longer, we have to do something”*.

2.0 RESEARCH METHOD

This paper presents the results from a single case study (Yin 2014; 2015) of a watershed planning process set in Saskatchewan, Canada. This watershed planning process is centred on Cumberland House and the people of that community. The case study provides opportunity to compare and contrast a ‘parallel’ planning processes: a western-science watershed planning model (Young and Patrick 2015) and an Indigenous planning model (Matunga 2013; Jojola 2008; 2013). The case study, including the planning process, is presented in Section 3 below; an analysis of the planning process is contained in Section 4 followed by a discussion of ‘parallel’ planning in the context of the SRD in Section 5.

3.0 CASE STUDY

In 2014, Cumberland House community members assembled to discuss the benefits of developing a water stewardship plan for the SRD. The meeting was facilitated by researchers from the University of Saskatchewan as part of a broader set of collaborative research projects examining change to the ecological and social condition of the delta and community. This initial meeting was advertised on local radio, notice boards and social media.

As described above, the communities bounded by the SRD, including Cumberland House, have existed without a formal watershed plan for millennia. However, this doesn’t mean that resource planning and management were absent from these communities. Decisions regarding the timing of hunt and harvest and the location of trap lines and fish nets required intimate knowledge of both land and water. The location of settlements in the delta region, water-based travel between communities as well as location and timing of trade to support local

economies all required local knowledge and experience, technical skill, human organization and communication, as well as great attention to critical, life and death, decision-making moments. Bound together, it is easy to see that planning was a core component of everyday life for the inhabitants of the SRD. In the words of Matunga (2013, p. 5), “[i]ndigenous planning has always existed. Indigenous communities predate colonialism and were planned according to their own traditions and sets of practices”.

It is the traditions and practices voiced from the community that continue to guide, and shape, the water stewardship plan. Specific traditions and practices—which include ancestral relationships to the land (and water), intimate knowledge of human-environment conditions, distinct cultural practices, and long term, intra- and inter-generational perspectives on decision-making—will be discussed in the following section in more detail.

3.1 SRD PLANNING FRAMEWORK

The planning framework used for the SRD—largely based on the rational planning model modified from Young and Patrick (2015)—provided structure to the planning process (Figure 3).

Stage 1: Working Committee

The SRD Water Stewardship Plan Working Committee (Working Committee) grew organically through word-of-mouth in the community, community radio, social media and public notices in Cumberland House. All meetings were open to the public. Early in the planning process a core community group of volunteers (the Working Committee) included First Nation Elders, elected officials from the First Nation and the Northern Village, trappers, business owners, teachers, and school administrators. Community members stressed that a written plan document for the region was long overdue. The university researchers (three faculty and several students) participated at all meetings as technical committee members in a supportive role to the Working Committee.

Figure 3. Five-Stage Planning Process for Watershed Planning (Young & Patrick, 2015)

Initial community meetings were held bi-monthly to build awareness in the community of the plan-making initiative but also to hear community concerns regarding the health of the SRD. Meetings were held in the evening with an opening prayer provided by an Elder followed by a supper meal prepared by the catering service of the community school. The researchers covered the cost of the meal, with proceeds supporting the development of a school playground. A total of 14 meetings took place between 2014 and 2019, with most meetings lasting 3 hours. At commencement of the planning process the Working Committee developed six guiding principles for the plan. These guiding principles were foundational to the plan-making process as well as plan implementation strategies:

i. The SRD Water Stewardship Plan process will

foster community ownership of both the plan making process and the final plan;

ii. The SRD Water Stewardship Plan process will be a collaborative and equitable SRD community partnership where the Working Committee members draw upon individual skills, experiences and local science knowledge to mutually work toward the plan's stated goal;

iii, The SRD Water Stewardship Plan process will engage in information analysis and interpretation processes that honour the lived experiences and local science knowledge of community members;

iv. The SRD Water Stewardship Plan process will be open and transparent to all community

Figure 4: The Circle of Management Action Themes (SRD Draft Plan, 2017)

members and outside agencies where the plan's goal and objectives are shared, and where the cooperative roles and responsibilities of the Working Committee members are clearly understood and expressed at all meetings;

v. The SRD Water Stewardship Plan process will employ information-sharing strategies leading toward advocacy, education, community benefit, and social change;

vi. The SRD Water Stewardship Plan process will foster a supportive Working Committee team environment through shared and equal opportunity to participate.

Stage 2: Delta Inventory and Risk Assessment

The second stage of planning began with a discussion over the extent of the plan area boundary. Different scenarios were discussed including the entire Saskatchewan River Basin to the Rocky Mountains, the sub-basin of the Saskatchewan River, and the immediate SRD area

only. No final decision was made of these three options. The SRD risk assessment provided community members an opportunity to engage in open dialogue and discuss threats facing the delta (see Table 1). Threats to the delta were collectively evaluated using a risk ranking exercise that would attach a numeric risk ranking for each threat. This exercise made use of sharing circle discussions to encourage open dialogue and information sharing. Elders were always first to speak. The sharing of stories included past hunting and trapping experiences, perceptions of river and delta health and personal experiences with sudden and unannounced water releases by the dam operator, SaskPower, as well as impacts on personal livelihoods. These discussions opened critical dialogue around a common concern, the health of the SRD. Formal rules for engagement were not necessary; instead, respectful dialogue was encouraged and practiced.

Stage 3: Management Action

The Working Committee identified desired management actions they understood as necessary to reduce or eliminate those perceived threats to the SRD identified in Stage 2.

Small group sharing circles, the use of 'sticky notes' to track input, diagrams and story telling by Elders and others helped to inform the planning process. Within the plan, management actions were grouped into three themes (see Figure 4). These themes encompassed mitigating the impacts of the dam, community empowerment, and *Mino-Pimatisiwin*, a Cree word meaning "the good life". Specific management actions will not be shared in this paper in the interest of confidentiality. Our purpose is to highlight the planning process, not the specific details of the plan.

Stage 4: Implementation Strategy

In Stage 4, many of the identified threats and their associated management actions, organized by the three themes (see Table 1), were assigned potential dates to completion as well as potential partners.

Table 1: Identified Threat to Saskatchewan River Delta (SRD Draft Plan 2017)

Identified Threats to the SRD (not prioritized)
Climate Change
Decline of Ecosystem
Extreme low water from E.B. Campbell
Lack of Knowledge about Saskatchewan River Delta
Lack of safe drinking water
Dam collapse
Loss of local economy (fishing and trapping)
Mercury from Tobin Lake
Wastes from landfill
Resource extraction
Cumulative damage
Decline of wildlife, moose, beaver
Decline of plant life
Decline of fish, sturgeon
Loss of local economy
Low water and higher water temperature
Ducks Unlimited water control structures and maintenance
Lack of youth education about delta, planning process
E.B. Campbell Dam relicensing
Loss of traditional way of life
Lack of long term employment at E.B. Campbell Dam
Lack of water in the marsh
Lack of a health and learning center facility, derelict DUCs compound
Lack of trust in plan-making
Introduction of invasive species (zebra mussels)
Lack of sediment replenishment in delta

The implementation stage of the planning process remains in progress and will take significant dedication and commitment from the community, government/SaskPower, and university research partners to achieve plan objectives. The fifth and final stage in the planning process is the recommendation of an annual review of the plan to document any new information, to record

implementation success and to prioritize next steps toward plan implementation.

The purpose here is to assess the degree to which the draft plan adheres to important place markers that help define, and operationalize, Indigenous planning. In the section that follows the method of approaching this question will be described.

4.0 PLAN ANALYSIS

In this section we examine the process that guided the development of the draft plan. The second level of analysis looks at the outcomes of the plan. In both instances we are looking for the presence, or absence, of both Indigenous planning and western-science planning to exemplify movement, or transition, toward a parallel planning approach as introduced by Viswanathan (2019). We refer to Matunga (2013) and Jojola (2008, 2013) to identify six main components, or principles, of an Indigenous planning process.

4.1 INDIGENOUS PLANNING PROCESS

Matunga (2013) defines Indigenous planning as a process that “links specific Indigenous communities to defined ancestral places, environment, and resources” using both Indigenous and contemporary knowledge to make decisions. The “test” for Indigenous knowledge, according to Matunga (2013) “is whether the action or activity (from a plan) leads to an enhanced state of well-being of/for the Indigenous community”. This interpretation of the benefits of planning for Indigenous peoples and communities is consistent with other Indigenous scholars (Lane & Hibbard, 2005; Jojola, 2008, 2013; Wilson & Inkster, 2018; Barry & McNeil/Cassidy, 2019). For the purpose of this paper we highlight six inherent principles (see Figure 5) central to Indigenous planning as outlined by Matunga (2013).

People (Indigenous peoples; distinct identity; attachment to ancestral territories and natural resources; distinct language; customs; desire to rise out of exploitation,

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oppression; importance of ancestry and kinship connections)

Place (Place-based planning; the planning area extends beyond any imposed colonial boundaries to include traditional territories, lands and water; local or national scale defines community; includes resources; Indigenous ownership of the “right” to plan over traditional space that is theirs)

Inter-Generational Knowledge (Access to relevant knowledge and accepted as legitimate by the community. Traditional knowledge, storytelling, including western-science knowledge, knowledge collaboration not competition; knowledge from experience and interactions with the natural environment; orally transmitted between generations; collectively owned)

Values and Worldviews (Values based on deep spiritual and physical connection as kinfolk with their place, land, territories, environment, and resources. Worldviews and values reinforce linkages between community, ancestral land and ancestors)

Decisions (Nested at the local level; with Indigenous coalition building at national level; strive for consensus building; protecting future generations, land and environment; access to traditional knowledge; skilled respected leadership; Elder wisdom)

Practice (Implementation of plans takes leadership, Elders as guardians of decisions; culturally appropriate actions connected to land and resource management; need to operate parallel to western rules and laws; Ability to operate in Indigenous and western legal processes).

We use this planning process framework to examine those elements of the plan that show a presence or an absence of those principles identified by Matunga (2013). For example, does the plan represent an Indigenous identity closely attached to the land and the ancestry of those now living? Is there a distinct language and set of customs that inform the plan with an underlying purpose of rising

Figure 5: Indigenous Planning Process (Matunga, 2013)

out of exploitation? Table 2 provides a means of comparison between an Indigenous planning process and its principles as shown in Figure 5 and those principles and practices contained within the SRD draft plan.

5.0 DISCUSSION

In this section we discuss parallel relationships that exist between the western-science framework that guides this plan and the six Indigenous planning principles detailed above. While the planning process initially adopted a framework nested in western-science, the interaction of the community ensured that the values, customs and voices of the

Table 2. Indigenous Planning Principles, Indicators, and Evidence from the SRD plan.

Principles	Criteria	Indicators
<i>People</i>	<ul style="list-style-type: none"> • Indigenous participants with ancestry and kin connections • Decision-making for natural resources in traditional territory • Culturally distinct language; customs • Desire to rise out of exploitation, oppression 	<ul style="list-style-type: none"> • Predominantly/all Indigenous working committee membership; • Managing water for people and for ecosystems • Indigenous protocols: for planning • Naming and addressing dam impacts and seeking empowerment
<i>Place</i>	<ul style="list-style-type: none"> • Place-based planning, not colonially bound • Rightful/legitimate claim to planning authority 	<ul style="list-style-type: none"> • Trans-boundary, multi-scalar / nested approach • Participants with long-established links to water, land, and place
<i>Knowledge</i>	<ul style="list-style-type: none"> • Respected knowledge keepers; • Oral knowledge component • Indigenous data collection methods; • Collaborative and collective knowledge production 	<ul style="list-style-type: none"> • Land users, community staff, and Elders share observations and knowledge • Story-telling and dialogue • Participatory risk assessment
<i>Values and Worldview</i>	<ul style="list-style-type: none"> • Spiritual and physical connection to place, land territory, environment, resources • Worldviews and values links community, territory, and ancestors 	<ul style="list-style-type: none"> • Linking of human well-being to ecosystem well-being, highlighting water • Seeking ‘the good life’ for all kin through equitable relations
<i>Decisions</i>	<ul style="list-style-type: none"> • Grassroots decision-making, broader coalition-building • Consensus orientation • Skilled and effective leadership • Elder wisdom • Future-orientation • Environmental protection 	<ul style="list-style-type: none"> • Community participants and support • Consensus-seeking decision-making • Plan champions include land users and elected officials • Elder voice, stories, experiences written into plan • Aiming to improve delta environment for all relations
<i>Practices</i>	<ul style="list-style-type: none"> • Leadership in implementation • Elders as ‘guardians’ • Culturally appropriate actions • Parallel colonial rules and laws • Participate in Indigenous and colonial legal processes 	<ul style="list-style-type: none"> • Collaborative data analysis • Information sharing, not prescription or regulation • Consensus-seeking, not simple majority • Planning parallels, informs, but not constrained to dam re-licensing

* Note: Principles from Matunga (2013)

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community were written into the plan, structured meetings, and guided the interactions. This parallel approach helps western-science planning to become more inclusive, responsive, and relevant to Indigenous peoples.

We begin our discussion prior to the 2014 establishment of the Working Committee. Beginning in the 1960s, residents of Cumberland House voiced concern, frustration, even anger, toward the provincial Crown corporation, SaskPower, over the impoundment of water (and sediment) in the reservoir known as Tobin Lake behind EB Campbell Dam (constructed 1965). Community concerns include the sudden, destructive, and un-announced releases of large volumes of water into the SRD threatening human life and fur-bearing animals such as muskrat and beaver. Almost immediately after the construction of dams on the Saskatchewan River, regional population of muskrat, beaver, sturgeon, moose and other species plummeted allowing invasive species such as phragmites (grass weed) to alter the natural ecosystem.

In addition, land- and water-based traditional food gathering practices were disrupted as well as loss of employment to local wilderness guides and outfitters. For decades, the dam operator made no attempt to mimic the natural flows of the Saskatchewan River, but instead manipulated river flow to solely serve an industrial purpose: power generation for southern customers. As a direct result, community members, particularly those with close ties to hunting, fishing, trapping, outfitting and guiding—as well as the many Indigenous residents who practice traditional livelihoods—continue to experience personal trauma, cultural disconnection and financial loss from operation of the E.B. Campbell dam. A sense of powerlessness, alienation and lack of voice regarding dam operation and management adds frustration to local residents.

From this backdrop, a group of community members expressed an interest in forming a committee to develop a water stewardship plan for the SRD. Using a planning framework from western-science, academics from the University of Saskatchewan were asked to facilitate this process. All meetings of the Working Committee embraced open dialogue amongst community members. The Working Committee immediately put forward a set of planning principles, the first of which is to ensure community ownership of the plan.

We see this stage as functioning parallel to the “People” objective (Matunga, 2013), wherein those providing voice into the planning process, and the plan document, have a distinct identity as Indigenous peoples, representing Indigenous values attached to ancestral territory (the SRD) with a distinct Cree language. Binding the ‘people’ is deep concern over the declining health of the SRD measured by many metrics ranging from animal population decline to shallowing of delta water depth and introduction of invasive species. The desire to “rise out of exploitation” from the power utility, SaskPower, is both a unifying force in the community and a key driver of the SRD Water Stewardship Plan.

Stage 1 of the western-science planning framework served to bring together community members to commence plan-making in the interest of the SRD. In doing so, the framework supported community customs and identity while facilitating dialogue exposing oppressive corporate practices that have harmed community relations and produced unjust environmental outcomes.

Stage 2 of the planning framework seeks to characterize the land-base. First, the boundary definition is considered followed by threats identification. Three boundary options were discussed by the Working Committee, the first of which is an expansive boundary stretching back to the eastern slopes of the Rockies. This boundary

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would consider the full impacts of the watershed to the SRD. A second option included a more limited Saskatchewan River watershed downstream of ‘the Forks’ (confluence of the north and south Saskatchewan near Prince Albert) and the third option, which focuses on the SRD downstream of the EB Campbell Dam. Western-science planning prioritized boundary definition as a key requisite to plan-making. The Working Committee remains less concerned with a hard boundary to define the planning area. Instead, the Working Committee, and Indigenous perspective, seeks to plan over traditional territories and in relation to interests and values of those in the SRD and not bound by the confines of lines on a map.

Another activity set out in Stage 2 was for the Working Committee to identify threats facing the SRD. This became a small group activity wherein each group reported identified threats to the full committee. Rich dialogue ensued around first-hand experiences of changes to the SRD. Multiple meetings were necessary to allow Working Committee members, in particular Elders, to describe changing conditions to the SRD from decades of observation. We see Stage 2 of the plan-making exercise as functioning parallel to the “Place” objective (Matunga 2013) wherein place-based planning began with a rejection of a mapped ‘colonial’ plan boundary with preference given to a traditional territorial boundary. This approach embraces Indigenous ownership, sovereignty and control over the right to plan over traditional lands and waters that define an ancestral ‘place’.

Stage 2 also included a risk assessment of the identified threats to the SRD. This stage of the planning process draws extensively on relevant land-based knowledge from community members. Sharing circles and large group discussion provided space for storytelling including traditional and local knowledge as well as experiences and observations of the land and livelihoods including trapping and

hunting. Through these interactions, the planning process gave expression to the many changes, and negative impacts, experienced within the SRD. The third guiding principle from the draft plan recognizes and “honours the lived experiences and local science knowledge of community members”. This aspect of the plan making process prioritizes and makes space for inclusion of Indigenous knowledge—collectively owned knowledge based on experience and interaction with the natural environment.

Stage 3 engages the Working Committee to devise management actions to reduce or eliminate previously identified risks in Stage 2. This phase empowers the Working Committee to envision a range of activities and actions to bring about positive change toward *mino-Pimatisiwin*, a Cree word meaning “the good life”. This phase, or stage, of the planning process draws on what Matunga (2013) identifies as the values and worldviews that reinforce linkages between community, ancestral lands and ancestors. As Working Committee members strive to repair past damages, address inequitable power relations, and mitigate against future impacts to the SRD they coalesce traditional and local knowledge to protect both land and water but also future generations (Jojola, 2013). The Working Committee achieved this by drawing on Elder wisdom and land-user knowledge through dialogue and information sharing circles. This is also an important decision-moment in the planning process wherein the Working Committee will recommend appropriate management actions based on consensus, local knowledge and Elder wisdom (Matunga, 2013; Wilson & Inkster, 2018).

Stage 4 of the planning framework outlines the implementation strategy for the plan. Implementation is the act of getting things done. Actions and activities become prioritized, partnerships identified and timelines set. While these are early days for implementation of the draft

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SRD Water Stewardship plan, there are certain challenges ahead. Perhaps the greatest challenge is jurisdiction. The autonomy of the Cumberland community to plan its future is partly tied to the mechanism of state authorities (Barry & McNeil/Cassidy, 2019), as many of the activities and management actions require the cooperation and engagement of provincial and federal agencies. In the absence of changes in federal and provincial laws and policies, putting the SRD draft plan into practice will require the Cumberland community to be conversant with, and amenable to, the rules and regulations of state planning. The degree to which the community can work within the confines of state planning authorities while also forwarding the goals and objectives of the SRD Water Stewardship Plan will be a delicate, but necessary, balance (Matunga, 2013).

Stage 5 calls for an annual review of the plan. This phase re-unites the Working Committee, including any new members to review and document completed actions and activities from the plan while targeting and prioritizing future work. The cyclical nature of the planning process re-affirms Indigenous relationships with their traditional territory.

6.0 CONCLUSION

The rational-scientific planning approach—entrenched in rules and regulations of the state—continues to offer little space for other knowledge systems, thereby dismissing key tenets of Indigenous planning. Past resource planning and management projects of the provincial and federal governments have brought few benefits and many harms to northern and Indigenous communities in Canada. This is not an unusual condition in settler-colonial society, particularly in resource-rich nation states (Lane & Hibbard, 2005 ; Porter 2010; Porter & Barry 2016; Jackson, 2018). The negative impacts of resource extraction and large scale hydroelectric projects, for example, have rarely been shared evenly, if ever, with Indigenous

populations in Canada (Waldram, 1988; Quinn, 1991 ; Patrick et al., 2018). In this case example, we have shown that the residents of Cumberland House, Saskatchewan, have had little voice over water management decisions involving water diversions and the placement of dam structures upstream of the SRD.

In response, a water stewardship plan for the SRD was envisioned by the community of Cumberland House as a means of exerting their rightful presence within the SRD and to document a legacy of negative change resulting from ‘modern’ hydraulic engineering. The plan-making process brought community members together to speak for the SRD and to share critical dialogue.

Here, the intersection of a western-science planning model and Indigenous planning principles opens new space for relationship building, collaboration, and shared knowledge systems, collectively enhancing planning in Canada and in other settler states (Viswanathan, 2019). The SRD water stewardship planning process began as a planning exercise to identify threats in an attempt to restore at least some of the SRD. The rational scientific framework provided structure for the plan, yet the content of the plan embraces many of the principles central to Indigenous planning –people, place, knowledge, values and worldviews. The tradition of oral communication remains strong in the community. As such, it was critical that ‘open floor’ discussion be encouraged. This especially held for Elders and other land and water users with stories that needed to be heard. From the community perspective, enabling Elder dialogue was seen to be part of the plan-making process.

As planners, we have an opportunity to embrace both western-science and Indigenous knowledge systems, something known as “two-way” knowledge exchange (Robinson & Lane 2013) or “two-eyed seeing” (Bartlett et al., 2012). Two-way knowledge exchanges offer multiple perspectives

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and an opportunity to corroborate data and observations (Arsenault et al., 2018). Rather than a convergence, or integration, of western-science and Indigenous planning methods (Adams et al., 2014) we see the benefit of each planning method, or ‘parallel’ planning (Viswanathan, 2019). One method providing a systematic structure, or framework, to support the planning process opening space for community voice and engagement while the other provides the contextual components to be included in the plan. Broad adoption of a ‘parallel’ planning approach has potential in Canada to ‘reclaim’ Indigenous planning while also easing land use conflicts and resource management uncertainty.

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