

Pekwé hé Dene Ts'_[l_[] Sustaining Relationships

Final Report of the

?ehdzo Got'įnę Gots'ę́ Nákedi

Sahtú Renewable Resources Board

Bluenose East ?ekwę́ (Caribou) Hearing 2016

Submitted to Honorable Wally Schuman

Minister of Environment and Natural Resources

Legislative Assembly of the Northwest Territories

The ?ehdzo Got'ınę Gots'ę́ Nákedı (Sahtú Renewable Resources Board) is the co-management board established by the *Sahtú Dene and Metis Comprehensive Land Claim Agreement* of 1993 (SDMCLCA) as the main instrument of wildlife and wildlife habitat management in the Sahtú Region of the Northwest Territories. Our Dene name means "Helpers of the ?ehdzo Got'ınę, the Trap People." We work together with ?ehdzo Got'ınę (Renewable Resources Councils) in the five communities of the Sahtú Region to maintain Dene and Métis harvesting traditions, and keep the land and animals healthy for future generations.

Final Report Submitted: July 28, 2016

This Report presents the final decisions of the Board members.

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July 28, 2016

Hon. Wally Schumann
Minister of Environment and Natural Resources
Legislative Assembly of the Northwest Territories
Box 1320
Yellowknife, NT X1A 2L9
Via email: Wally_Schumann@gov.nt.ca

Dear Minister Schumann:

Letter Regarding SRRB Final Report on the Sahtú Bluenose East ?ekwé Hearing 2016

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board - SRRB) is pleased to submit ?ekwé hé Dene Ts'ılı - Sustaining Relationships: Final Report on the Sahtú Bluenose East ?ekwé Hearing 2016.

The SRRB has now completed its review of two proposed plans for conservation and management of Bluenose East (BNE) ?ekwé (caribou).

On December 15, 2015, the SRRB received a plan with proposals from Environment and Natural Resources (ENR), Government of the Northwest Territories (NWT). The ENR plan provided an assessment of BNE 2ekwé status and proposed harvest restrictions and other measures to address conservation concerns.

On January 8, 2016, the community of Déline, a primary harvester of BNE 2ekwé, also submitted a plan with proposals to address BNE 2ekwé status and conservation needs. Déline's Belare wile Gots'é ?ekwé – Caribou for All Time is a community action plan (Déline plan) for 2ekwé which proposes a detailed conservation approach including a number of 2ekwé conservation and harvest management measures.

The SRRB was required to review the ENR and Déline plans as part of its mandate under the *Sahtú Dene and Métis Comprehensive Land Claim Agreement* (SDMCLCA) to "approve plans for the management and protection of particular wildlife populations" (SDMCLCA section 13.8.23). Upon reviewing the plans, the SRRB concluded that the plans contained sufficient information to trigger a hearing, as required under the SDMCLCA when harvest restrictions are being considered or when the SRRB is satisfied that a hearing is desirable (SDMCLCA section 13.8.21).

The SRRB recognizes that this is the first time a wildlife co-management board in the NWT has been called upon to review wildlife management plans independently developed by government and Aboriginal community proponents. The SRRB carefully considered the approach to weighing both the Dene náowerá (traditional knowledge) evidence and the science-based evidence as a basis for the decisions included in this Report.

The enclosed Report contains the SRRB's assessment of the two plans and concludes based on the evidence in the Hearing that some aspects of both plans should be accepted.

Importantly, the SRRB concludes that both the Dene náowerá evidence and science evidence support the finding that there are conservation concerns regarding the BNE 2ekwé. The SRRB also concludes based on the evidence that a community conservation planning process (as proposed in the Déline plan) is the best option for addressing conservation needs through an effective community-based 2ekwé monitoring and harvest management program.

The Report contains a number of decisions regarding the BNE 2ekwé conservation issues identified in the Hearing. These decisions were undertaken based on a holistic and asíį godí hé Dene ts'ılı hé (biocultural) approach to 2ekwé conservation, and thus should be considered as an interrelated package rather than on an individual case-by-case basis.

The SRRB looks forward to working with ENR and other co-management partners in our continuing and collaborative efforts to find the best, evolving mechanisms to address BNE 2ekwé conservation needs.

Sincerely,

Michael Neyelle SRRB Board Chair on Behalf of the SRRB

Cc: Ernie Campbell, Deputy Minister, ENR

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Report Summary

This Report provides the decisions of the ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board – SRRB) based on evidence and public hearings about potential conservation needs to protect Bluenose East (BNE) 2ekwé (caribou).

On December 15, 2015, the SRRB received a plan from Environment and Natural Resources (ENR), Government of the Northwest Territories, which provided a) an assessment of BNE 2ekwé status, and b) proposed náts'ezé (harvest) restrictions and other measures to address náts'ezé concerns.

The community of Déline, a primary harvester of BNE 2ekwé, submitted the *Belare wile Gots'é Pekwé – Caribou for All Time* community action plan for 2ekwé (Déline plan) on January 8, 2016. The Déline plan also proposed an approach to 2ekwé conservation, including various náts'ezé 2e2a (harvest management) measures and a variety of other proposed actions that would assist in conservation efforts.

The SRRB was required to review the ENR and Déline plans as part of its mandate under the *Sahtú Dene and Métis Comprehensive Land Claim Agreement* (SDMCLCA) to "approve plans for the management and protection of particular wildlife populations." This is the first time a wildlife co-management board has been called upon to review plans independently developed by government and community proponents.

A Hearing was scheduled for March 1-3, 2016 in the community of Déline. Registered Hearing Parties included Déline, ENR, panels from four of the five Sahtú communities, and the Sahtú Youth Connection. The SRRB also exercised its discretion under its *Rules for Hearings* to hold workshops in the Sahtú communities.

In preparation for the Hearing and in recognition that caribou conservation measures must encompass the entire scope of 2ekwé habitat, the SRRB signed a *Memorandum of Understanding* with the Wek'èezhìì Renewable Resources Board (WRRB) for collaboration in the two boards' respective hearing proceedings.

The community Parties advocated during the Hearing for decisions to encompass as $\hat{\mu}$ godí hé Dene ts' $\hat{\mu}$ hé (all living things and Dene ways of being). The SRRB has thus adopted a biocultural approach to weighing the evidence, and has sought to arrive at decisions that address as $\hat{\mu}$ godí hé Dene ts' $\hat{\mu}$ hé (biocultural diversity).

This Report is structured according to topics and themes arising from the Hearing proceeding. There are four key topics addressed in the Report, identified as Parts A-D:

Part A: ?ekwé hé Dágóht'e (Caribou Status)

Part B: ?edets'é K'áots'erewe (Governance)

Part C: Dánít'a 2ekwé k'éts'ıne gha daradé? (Causes of Decline)

Part D: Náts'ezé (Harvesting)

Each topic includes a series of key themes which were reviewed by the SRRB with respect to the available Dene náowerá (traditional knowledge) and scientific evidence as the basis for decision-making. The SRRB considered two types of decisions arising from the evidence: 1) Research Priorities and 2) Policy Priorities. Thus the decisions are grouped by topic, theme, and type. There are a total of 14 themes and 39 decisions. Of these, 11 are Research Priority Decisions and 28 are Policy Priority Decisions.

It is the SRRB's view that these concepts and methods complement and support the public consensus that ?ekwé populations should be conserved for future generations. The SRRB's decisions are based on evidence that the best conservation outcomes are based on processes that are driven by local communities.

A lot of work is required to build upon the existing framework established under the SDMCLCA to forge a collaborative conservation process that stands the test of time and experience. This Report is an effort to identify the best contemporary mechanisms for achieving 2ekwé conservation in the Sahtú Region.

List of SRRB Bluenose East ?ekwé Hearing Decisions

The following decisions include two terms adopted by the ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) for the purpose of the Bluenose East ?ekwé Hearing, as follows: ?ekwé (caribou) and Dene náowerá (traditional knowledge). These terms are not translated in the decisions.

Part A: ?ekwé hé Dágóht'e (Caribou Status)

Hearing Theme 1 – Ayíı ?ekwé Qt'e? (Herd Definition)

Research Priority

Hearing Decision 1

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) finds that further Dene náowerá and genetics research is required to address questions regarding ?ekwę́ herd structure and distribution.

Policy Priority

Hearing Decision 2

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) finds that current evidence supports the distinction made between Bluenose East and Bluenose West ?ekwé herds. The SRRB finds that using this distinction also assists in facilitating cross regional conservation actions and sharing. The SRRB will therefore continue to base current management decisions on the understanding that Bluenose East and Bluenose West ?ekwé should be treated as distinct herds.

Hearing Theme 2 – ?ekwé K'éts'ine gha Daradé? (Population Trends)

Research Priority

Hearing Decision 3

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will work with tıch'adı́ı (wildlife) management partners to develop a well-rounded community-collaborative Dene náoweró and science-based research and monitoring program in order to provide greater certainty about the status of Bluenose East ?ekwé based on the ten criteria outlined in the *Taking Care of Caribou* plan developed by the Advisory Committee for Cooperation on Wildlife Management, and approved by the NWT Minister of Environment and Natural Resources.

Policy Priority

Hearing Decision 4

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) finds that a precautionary approach should be adopted in managing Bluenose East zekwę. Dene náoweró and science evidence supports the conclusion that Bluenose East zekwę are in the "orange zone," intermediate and decreasing, as identified in the *Taking Care of Caribou* plan developed by the Advisory Committee for Cooperation on Wildlife Management. This means Bluenose East zekwę gogha horíla (are at risk), and recovery of the herd is not certain. Based on a precautionary approach, the SRRB finds that a broad range of actions should be taken to support herd recovery and prevent further decline, so that Bluenose East zekwę will be present for future generations.

Hearing Decision 5

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) finds that the Dene náoweró and scientific evidence establishes that 2ekwę undergo natural cycles of decline and recovery, and that new social and ecological factors contribute new and unknown pressures that could accelerate decline or prevent recovery.

Part B: ?edets'é K'áots'erewe (Governance)

Hearing Theme 3 – ?ekwé ?edets'é K'áokerewe (Caribou Self-Regulation)

Research Priority

Hearing Decision 6

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will work with tլch'ádíı (wildlife) management partners to prioritize the research required to address questions about relationships between changing zededáhk'á gozekwę (caribou habitat), tլch'ádíı interactions and Bluenose East zekwę caribou náts'ezé (caribou harvesting) practices.

Policy Priority

SRRB Hearing Decision 7

The ?ehdzo Got'ınę Gots'ę́ Nákedı (Sahtú Renewable Resources Board) accepts the principle of ?ekwę́ ?edets'ę́ k'áokerewe (caribou self-regulation), as reflected in community conservation plans, as the best foundation for Bluenose East ?ekwę́ conservation at this time.

SRRB Hearing Decision 8

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) recommends that curriculum development in the Sahtú Region related to be based on concepts of asíı godí hé Dene ts'ılı hé (biocultural diversity) and ?edets'ę k'áots'erewe (self-regulation) in order to instill new

generations with understanding of the basis for hegerichá (respect), and to forge the way for new leaders in conservation.

Hearing Theme 4 – Dene hé Métis hé ?edets'é K'áokerewe (Community Self-Regulation)

Research Priority

Hearing Decision 9

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will prioritize research that both involves youth and explores youth learning and environmental leadership as a part of robust community conservation initiatives.

Policy Priorities

Hearing Decision 10

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) finds that an approach of community ?edets'ę k'áots'erewe (self-regulation) is a culturally appropriate and effective mechanism for addressing Bluenose East ?ekwę conservation as required under the SDMCLCA.

Hearing Decision 11

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) requests ?ehdzo Got'ınę (Sahtú Renewable Resources Councils) to develop and implement Bluenose East 2ekwę́ conservation plans following the timelines and including the content listed in Figure 5, page 44 of this Report.

Hearing Decision 12

The ?ehdzo Got'ınę Gots'ę́ Nákedı (Sahtú Renewable Resources Board) requests that the Federal and Territorial governments and Sahtú Secretariat Incorporated (SSI), and any new self-government institutions, address the resources needed for ?ehdzo Got'ınę (Sahtú Renewable Resources Councils) to develop community ?ekwę́ conservation plans and fulfill their other current responsibilities under the SDMCLA by:

- a) Providing immediate additional funding to ?ehdzo Got'ıne to fulfill those responsibilities over the next two years; and
- b) Providing additional funding on an annual long term basis after an assessment, done by the SRRB, ?ehdzo Got'ınę and Sahtú Secretariat Inc. by September 2017, to determine long term ?ehdzo Got'ınę capacity needs.

Hearing Decision 13

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) finds that there is strong consensus in the Sahtú Region that youth involvement is critical for the success of community 2ekwę conservation plans. The SRRB will prioritize support for regional and local youth

environmental leadership initiatives that can support community visions for youth education and participation.

Hearing Theme 5 - ?ełehé peghálats'eda (Collaborative Management)

Policy Priorities

Hearing Decision 14

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will prioritize support for zełehé zeghálats'eda (collaborative) research, community-driven conservation planning, and community environmental leadership development as essential components of robust zełehé zeghálats'eda gozekwę (caribou co-management) in the Sahtú Region.

Hearing Decision 15

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will exercise its power under the SDMCLCA to review and approve community, regional and cross-regional BNE ?ekwę́ conservation plans, and to contribute to ?elehé ?eghálats'eda (collaborative) implementation of approved plans.

Part C: Dánít'a pekwé k'éts' jne gha daradé? (Causes of Decline)

Hearing Theme 6 - Sahtú Got'ıne hé ?ekwé hé Gozılígu Néné (Cold Climate People and Caribou)

Research Priority

Hearing Decision 16

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) recommends that the Governments of Canada and the NWT seek and dedicate additional funds and support for research to understand the known and unknown impacts of ?ehdanagokwı (climate change) over the short term and long term, as it relates to ?ekwę́ and ededáhk's go?ekwę́ (caribou habitat), and that this research involve both Dene náowers and science perspectives in order to to better understand and monitor the impacts of the changing environment on Bluenose East ?ekwę́.

Policy Priority

Hearing Decision 17

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will prioritize working with NWT Environment and Natural Resources and other co-management partners to build awareness of the need to prevent collapse of the aligu nę́nę́ (cold climate) asíı godí hé Dene ts'ılı hé (biocultural) systems that aekwę́ depend on, and to engage in community, regional, territorial

and federal development and implementation of policy on zehdanagokwi (climate change) mitigation.

Hearing Theme 7- ?ededáhk'á Gozekwé (Caribou Habitat) and Narek'ó (Wildfires)

Research Priority

Hearing Decision 18

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) recommends that NWT Environment and Natural Resources, SRRB and ?ehdzo Got'ınę (Renewable Resources Councils) work together to develop a plan for community-collaborative Dene náowerá and science research on ?ededáhk'á go?ekwę́ (caribou habitat) and nerekǫ́ (wildfire) ecology and management.

Policy Priority

Hearing Decision 19

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will work with NWT Environment and Natural Resources and ?ehdzo Got'ınę (Sahtú Renewable Resources Councils) to review the current nerekǫ́ (wildfire) management policy and develop a new "forest management" plan for the Sahtú Region, with a focus on determining values-at-risk with respect to 2edáhk'ə́ go2ekwę́ (caribou habitat) and encompassing the edge of the treeline to the north of Great Bear Lake.

Hearing Theme 8 – ?ekwé gha Né K'éts'edí (Land Use Planning)

Research Priority

Decision 20

The ?ehdzo Got'ınę Gots'ę́ Nákedı (Sahtú Renewable Resources Board) will support community-collaborative initiatives to identify, name and conduct baseline assessments of critical ?ededáhk'ś go?ekwę́ (caribou habitat) in the Sahtú Region.

Policy Priorities

Decision 21

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will work with Délınę and co-management partners to provide input on requirements for establishing nę kárila k'ets'edi (conservation areas) during the Sahtú Land Use Plan five-year review scheduled for 2018-2019.

Decision 22

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will work with comanagement partners in the NWT to provide input into Nunavut Wildlife Management Board,

Nunavut Land Use Planning Board and Nunavut regulatory decisions regarding the importance of protecting the Bluenose East 2ekwé né golek'ó (calving ground).

Hearing Theme 9 – ?ekwé Łákídáka (Predators)

Research Priority

Decision 23

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will review and evaluate the Wek'èezhìı Renewable Resources Board's díga (wolf) control feasibility study when it is complete, and then engage in dialogue with ?ehdzo Got'ınę (Sahtú Renewable Resources Councils) to identify future research needs and whether a díga program should be put in place in the Sahtú Region.

Part D: Náts'ezé (Harvesting)

Hearing Theme 10 – ?ekwé Náts'ezé ?ea (Harvest Management)

Policy Priorities

Hearing Decision 24

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) accepts Resolution 1.2 of the April 23, 2015 Sahtú Meeting that "the Sahtú region continue the traditional laws of relationship with the ?ekwę́ through a Sahtú-developed ?ekwę́ plan including a process of self-regulation, driven by community-based monitoring and decisions." The SRRB accepts the principle that community-based monitoring and decisions are the most effective mechanism for ?ekwę́ management and conservation in the Sahtú region.

Hearina Decision 25

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) accepts Délinę's *Belare wile Gots'ę ?ekwę* plan for ?ekwę náts'eze ?e?a (harvest management), náts'eze gha k'inats'eneta (harvest monitoring), and dícho asíı k'ets'ęnę ajá t'á náze gha báts'odı (it's gone down so we're going to let it rest), including the plan for sharing náts'eze data with the SRRB and NWT Environment and Natural Resources as required by the *Sahtú Dene and Métis Comprehensive Land Claim Agreement*.

Hearing Decision 26

The ?ehdzo Got'ıne Gots'é Nákedı (Sahtú Renewable Resources Board) finds that Délıne's *Belare wile Gots'é ?ekwé* plan for ?ekwé náts'ezé ?e?a (harvest management), náts'ezé gha k'ínats'eneta (harvest monitoring), and dícho asíı k'ets'ene ajá t'á náze gha báts'odı (it's gone down so we're going to let it rest) is consistent with the intent of the cross-regional *Action Plan*

for the Bluenose-East Caribou Herd developed by the Advisory Committee for Cooperation on Wildlife Management (ACCWM) in the Taking Care of Caribou Plan process. The SRRB recommends that the ACCWM revise the Action Plan for the Bluenose-East Caribou Herd to recognize the Déline approach.

Hearing Decision 27

The ?ehdzo Got'ınę Gots'ę́ Nákedı (Sahtú Renewable Resources Board) will undertake an annual review and assessment of the community 2ekwę́ conservation plans in the Sahtú region, including Délinę's *Belare wile Gots'ę́ ?ekwę́* plan, to determine whether the plans are addressing conservation concerns for Bluenose East 2ekwę́.

Hearing Decision 28

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will assess the need for a Total Allowable Harvest limit if an annual review and assessment of community conservation plans in the Sahtú region demonstrates that conservation concerns for Bluenose East 2ekwę are not being adequately addressed.

Hearing Decision 29

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) recommends that NWT Environment and Natural Resources amend Schedule 5A of the *Big Game Hunting Regulations* under the Northwest Territories *Wildlife Act* to add a condition for current zone S/BC/03 that requires harvesting authorization from the local ?ehdzo Got'ınę (Renewable Resources Council), and removes the requirement for a tag for Bluenose East 2ekwę.

Hearing Theme 11 - Yárégo Kanáts' ezé (Smaller Male Caribou Harvest)

Policy Priorities

Hearing Decision 30

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) finds that, based on the evidence, a 0% tsída kanáts'ezé (female caribou harvest) is not appropriate at this time, but that a majority yárégo kanáts'ezé (smaller male caribou harvest) is important in order to address conservation needs. The SRRB therefore accepts the Délınę proposal for a majority yárégo kanáts'ezé, and requires Délınę to adapt its *Belare wile Gots'ę ?ekwę́* plan to allow for a maximum of 20% tsída kanáts'ezé.

Hearing Decision 31

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) requests that NWT Environment and Natural Resources amend Schedule A of the Big Game Hunting Regulations under the Wildlife Act to remove the requirement for a bull only harvest in current zone S/BC/03 and replace this with a condition requiring authorization from the local ?ehdzo Got'ınę (Renewable Resources Council).

Hearing Theme 12 – ?ekwé Náts'ezé gha K'ínats'eneta (Caribou Harvest Monitoring)

Research Priority

Hearing Decision 32

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will work collaboratively with ?ehdzo Got'ınę (Sahtú Renewable Resources Councils) to develop an adaptive approach to ?ekwę́ náts'ezé gha k'ínats'eneta (caribou harvest monitoring) as a basis for conservation planning.

Policy Priorities

Hearing Decision 33

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) accepts Délınę's *Belare wile Gots'ę ?ekwę́* plan for Bluenose East ?ekwę́ náts'ezé gha k'inats'eneta (caribou harvest monitoring).

Hearing Decision 34

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will assess whether the ?ekwę́ náts'ezé gha k'inats'eneta (caribou harvest monitoring) provisions in Délıne's *Belare wile Gots'ę́ ?ekwę́* plan are meeting the conservation goals of the plan as part of the SRRB's annual review of plan implementation.

Hearing Theme 13 – Náts'ezé Dáhk' á (Harvest Zones)

Research Priority

Hearing Decision 35

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will prioritize community-collaborative research working with and building on existing Dene náoweré map datasets and stories to understand the social-ecological history of Bluenose East 2ededáhk'é gozekwé (caribou habitat) within and beyond the boundaries of the Sahtú Region as a basis for community conservation planning.

Policy Priority

Hearing Decision 36

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will work with NWT Environment and Natural Resources and co-management partners in the Sahtú and Wek'èezhìı Regions to address concerns regarding the current *Big Game Hunting Regulations* zones for caribou, including overlap issues, Dene naming issues, the potential need for subzones and any necessary changes to zone definitions in the *Regulations*.

Hearing Theme 14 – ?ekwé ?e>a Hegerichá gha (Enforcement)

Policy Priorities

Hearing Decision 37

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) accepts Délınę's *Belare wile Gots'ę ?ekwę́* plan for 2ekwę́ 2e2a hegerichá gha (enforcement of) Bluenose East 2ekwę́ kanáts'ezé (caribou harvesting).

Hearing Decision 38

Déline and the Government of the NWT are requested to immediately begin a process for determining whether and how the restorative justice code for zekwé zeza hegerichá gha gózo (enforcement) in Déline's *Belare wile Gots'é ?ekwé* plan will be recognized as an "Alternative Measures" option under the *Wildlife Act*.

Hearing Decision 39

The ?ehdzo Got'ınę Gots'ę́ Nákedı (Sahtú Renewable Resources Board) will assess whether the restorative justice code for ?ekwę́ ?e?a hegerıchá gha gó?ó (enforcement) in Délınę's *Belare wile Gots'ę́ ?ekwę́* plan are meeting the conservation goals of the plan as part of the SRRB's annual review of plan implementation.

Introduction

This Report provides the decisions of the SRRB (Sahtú Renewable Resources Board – SRRB) based on evidence and public hearings about potential conservation needs to protect Bluenose East¹ (BNE) 2ekwé (caribou).

On December 15, 2015, the SRRB received a plan from Environment and Natural Resources (ENR), Government of the Northwest Territories, which provided a) an assessment of BNE 2ekwé status, and b) proposed náts'ezé (harvest) restrictions and other measures to address náts'ezé concerns.² The community of Dél₁ne, a primary harvester of BNE 2ekwé, submitted the *Belare wile Gots'é ?ekwé – Caribou for All Time* community action plan for 2ekwé (Dél₁ne plan) on January 8, 2016.³ The Dél₁ne plan also proposed an approach to 2ekwé conservation, including various náts'ezé 2e2a (harvest management) measures.

The SRRB is the main instrument for managing Sahtú gotįch'ádíı (wildlife of the Sahtú Region). The SRRB was established under the *Sahtú Dene and Métis Comprehensive Land Claim Agreement* (SDMCLCA) of 1993. The SRRB was required to review the ENR and Délįnę plans as part of its mandate to "approve plans for the management and protection of particular wildlife populations."

Upon reviewing the plans, the SRRB concluded that they contained sufficient information to trigger a hearing, as required under the SDMCLCA when harvest restrictions are being considered or when the SRRB is satisfied that a hearing is desirable. On January 11, 2016 the SRRB announced that a hearing was scheduled for March 1-3 in the community of Déline. Registered Hearing Parties included Déline, ENR, panels from four of the five Sahtú communities, and the Sahtú Youth Connection.

The SRRB exercised its discretion under its *Rules for Hearings*⁶ to hold workshops in the Sahtú communities. Based on this preliminary consultation, on February 22, the SRRB issued a "List of Key Emerging Issues" on the topics of consultation, knowledge, conservation, and

¹ The SRRB prefers "Bluenose East," and has used this spelling throughout the Report. When the spelling

[&]quot;Bluenose-East" occurs in directly translated text, this alternate hyphenated spelling has been retained.

² ENR. 2016 (January 11). Proposal for Management Actions for the Bluenose-East Caribou Herd 2016-2019, 2, PR 2.15.

³ Délinę ?ekwé Working Group (DEWG). 2016 (May 20). *Belare wile Gots'é ?ekwé – Caribou for All Time: A Déline Got'ine Plan of Action*, 2nd edition. Note that "belare wile" is spelled as one word in the DEWG document; for the purpose of this SRRB BNE ?ekwé Hearing Report, it is spelled as two words. The SRRB recognizes that spellings will evolve as terminology research continues.

⁴ Sahtú Dene and Métis Comprehensive Land Claim Agreement (SDMCLCA) 13.8.23(c), PR SRRB Rules-Guiding Documents 2.

⁵ SDMCLCA 13.8.21 (a and b).

⁶ SRRB *Rules for Hearings* Section 4.6, PR SRRB Rules-Guiding Documents 5.

communication/education to assist the Sahtú communities in preparing for the Hearing and addressing key questions arising in the plans and in initial community consultation.

In preparation for the Hearing and in recognition that caribou conservation measures must encompass the entire scope of ?ekwé habitat, the SRRB signed a *Memorandum of Understanding* with the Wek'èezhìi Renewable Resources Board (WRRB) for collaboration in the two boards' respective hearing proceedings. ⁷ The two boards committed to attending each other's hearings and reviewing materials available on our respective public registries.

The SRRB also exercised its discretion⁸ to take notice of other processes or evidence relevant to the current Hearing, including:

- action planning undertaken by the Advisory Committee for Cooperation on Wildlife Management (ACCWM)⁹ pursuant to the *Taking Care of Caribou* management plan¹⁰ for BNE 2ekwé (2014);
- the Kugluktuk Hunter and Trappers Organization submission to the Nunavut Wildlife Management Board (NWMB) BNE ?ekwé Hearing regarding the same herd;
- the Nunavut Planning Commission Hearing on land use planning that encompasses BNE calving grounds;
- Species at Risk processes including the NWT Species at Risk Committee's draft
 assessment documents and the draft six-month interim status report on barren-ground
 caribou in Canada prepared by the Committee on the Status of Endangered Wildlife in
 Canada (COSEWIC); and
- Some scientific literature with which the Board is well-acquainted, given its expertise as
 a wildlife policy board, where the Parties had not provided science-based rationale for
 their proposals and where the Board was confident that the parties would not be
 prejudiced by that evidence.

⁷ The WRRB is the wildlife management authority established by the Tł₁cho Land Claim and Self-Government Agreement. See SRRB and WRRB. 2015 (October 27). *Memorandum of Understanding Regarding Collaborative Efforts for the Management of the Bluenose-East Caribou Herd*, PR SRRB Rules-Guiding Documents 1.
⁸ SDMCLCA 13.8.18 and 13.8.23(g) and SRRB Hearing Rules 3.6 and 3.7, PR SRRB Rules-Guiding Documents 2, 5.

⁹ The Advisory Committee for Cooperation on Wildlife Management (ACCWM) is a voluntary network of wildlife management boards created by those boards to share information and coordinate wildlife management, with a particular focus on the management of trans-boundary caribou herds. The members of the ACCWM are the Gwich'in Renewable Resources Board, the Tuktut Nogait National Park Management Board, the WRRB, the SRRB, the Wildlife Management Advisory Council-NWT, the Kitikmeot Regional Wildlife Board, and the Nunavut Wildlife Management Board (NWMB).

¹⁰ As an ACCWM member, the SRRB helped develop the 2014 ACCWM *Taking Care of Caribou* plan: ACCWM, 2014. *Taking Care of Caribou: the Cape Bathurst, Bluenose-West, and Bluenose-East barren-ground caribou herds management plan*, 17, PR 3.20.

This is the first time a wildlife co-management board has been called upon to review plans independently developed by government and community proponents. This is also the SRRB's first hearing after challenges experienced in the Bluenose West (BNW) ?ekwé Hearing in 2007. The SRRB therefore carefully considered the approach to weighing evidence as a basis for decisions with respect to the present BNE ?ekwé Hearing. The SRRB reflected upon evidence shared by all community Parties who testified that Dene and Métis of the Sahtú see themselves, the land and water, and ?ekwé, as fundamentally linked in a web of relationships. The SRRB heard compelling evidence of how Dene and Métis of the Sahtú have evolved cultures in coexistence and interdependence with ?ekwé and how old time stories provide insights into this relationship. ¹¹

The community Parties advocated during the Hearing for decisions to encompass asíµ godí hé Dene ts'µlµ hé (biocultural diversity). The SRRB accepts this evidence and finds that it is consistent with both land claim objectives and emerging international best practices recognizing the importance of biocultural approaches to conservation of Sahtú gotµch'ádín (wildlife). The SRRB has thus adopted a biocultural approach to weighing the evidence, and has sought to arrive at decisions that address asíµ godí hé Dene ts'µlµ hé.

The decisions do not easily fit within standard science-based tụch'ádíı (wildlife) management concepts and methods, since they are based on an assumption that Dene and Métis users are the main agents of conservation and thus their concepts and methods should be the starting point for 2ekwé management and conservation. It is the SRRB's view that these concepts and methods complement and support the public consensus that 2ekwé populations should be conserved for future generations, and are based on evidence that the best conservation outcomes are based on processes that are driven by local communities. ¹³ The decisions are largely process-oriented, and reflect the fact that the efforts to situate the Sahtú in relation to cross-regional 2ekwé conservation institutions and processes is new.

A lot of work is required to build upon the existing framework established under the SDMCLCA to forge a collaborative conservation process that stands the test of time and experience. This

¹¹ DEWG, supra, footnote 3, 15; Délįnę ?ehdzo Got';nę (Renewable Resources Council) response to WRRB Bluenose-East Caribou Herd Public Hearing – Undertaking No. 3, April 15, 2016, WRRB BNE PR 170, http://www.wrrb.ca.

Article 8(j) of the International Convention on Biodiversity asserts that the conservation of biodiversity must encompass indigenous knowledge and ways of life. The UNESCO International Conference on Cultural and Biological Diversity for Development Declaration on Biocultural Diversity goes further, recognizing that "biological and cultural diversity are intrinsically and inextricably linked and together hold the key to sustainable development." UNESCO International Conference on Cultural and Biological Diversity for Development, Montreal, 2010, 1. http://www.unesco.org/mab/doc/iyb/Declaration.pdf.

¹³ See the review of evidence pertaining to Theme 4 in this Report, Dene hé Métis hé ?edets'é K'áots'erewe (Community Self-Regulation).

Report is an effort to identify the best contemporary mechanisms for achieving 2ekwé conservation in the Sahtú Region.

Máhsi cho

Máhsı cho (thank you very much) to ENR and the community of Déline for providing carefully developed plans containing excellent evidence and a discussion framework for the Bluenose East ?ekwé Hearing proceeding. Máhsı also to the community Parties and the public for providing input that was invaluable in assisting the SRRB to reach clarity on the decisions to be made.

Thank you to the Wek'èezhìi Renewable Resources Board for willingness to coordinate hearings and the opportunity to attend the Behchokò hearings in order to ensure that both boards heard the best evidence possible in a cross-regional wildlife management context.

The SRRB is grateful to our legal counsel, Lorraine Land, and technical advisors Allice Legat and Colin Macdonald for their dedication to ensuring that SRRB decisions are grounded in a solid foundation in law, Dene náowerá, and science.

Much of the terminology in our Dene gokedé (Dene language) glossary was originally developed by the Déline ?ekwé Working Group and verified by Jane Modeste. University of Toronto linguist Keren Rice provided invaluable assistance in reviewing our version for consistency, while reminding us that more research on language and concepts needs to be done.

Finally, we thank Report editor Bethann Garramon Merkle of CommNatural for her meticulous efforts to ensure that the Report conveyed the intended meaning to our diverse audience.

Parties to the Hearing

The following Parties, including the two proponents, were formally recognized by the SRRB and participated in the Hearing proceeding:

- 1. Déline ?ehdzo Got'ine (Renewable Resources Council), Land Corporation and First Nation (joint application for party status; collectively referred to in this Report as Déline)
- 2. Tulit'a Renewable Resources Council
- 3. Tulít'a Dene Band
- 4. Norman Wells Renewable Resources Council
- 5. Fort Good Hope Renewable Resources Council
- 6. K'asho Got'ine Community Council
- 7. Colville Lake Renewable Resources Council, Ayonı Keh Land Corporation, and Bedzı Ahda' First Nation (joint application for party status; collectively referred to in this Report as Colville)

- 8. NWT Environment and Natural Resources (ENR)
- 9. Sahtú Youth Connection (SYC)

The SRRB encouraged any Parties from the same community (such as Band Councils and RRCs) to jointly present their evidence and submissions, which these Parties did.

Milestones and Timelines

The following milestones and timelines in 2016 marked the Hearing proceeding; note that the SRRB exercised its discretion to adaptively modify timelines as necessary during the proceeding. Documentation associated with these events is posted on the SRRB's public registry at www.srrb.nt.ca.

January 11	SRRB published Notice of Hearing
February 1	SRRB issued invitation to ?ehdzo Got'ınę (Renewable Resources Council) Pre-Hearing Workshops
February 2- March 29	 Pre-Hearing Workshops, as follows: Déliné Pre-Hearing Workshop and Public Meeting, February 5 Sahtú Youth Connection Workshop, February 26-29
February 12	Deadline for Parties' Information Requests to Déline and ENR
February 19	Pre-Hearing Teleconference
February 21	Publication of draft Hearing Agenda and List of Key Emerging Issues
February 23	Colville files Motion regarding Conflict of Interest and Bias
February 26	ENR responses to Information Requests
February 26	SRRB preliminary decision on Colville Motion regarding Conflict of Interest and Bias
March 1-3	Public Hearing in Déline
March 7	Publication of full SRRB Reasons for Decision on Colville Motion regarding Conflict of Interest and Bias
March 11	Invitation to ?ehdzo Got'ınę Post-Hearing Workshops
March 12- May 13	 Post-Hearing Workshops, as follows: Déline Post-Hearing Workshop, April 22 Fort Good Hope Post-Hearing Workshop, April 29 Tulít'a Post-Hearing Workshop, April 29 and May 3
April 6-8	Wek'èezhìi Renewable Resources Board Bluenose East Hearing in Behchokò

May 13	Final submissions by Parties and the public
May 20	Final submissions by Déline and ENR
July 25	SRRB Report including SRRB decisions based on Hearing process
September 23	Deadline for Minister to accept, vary or set aside and replace SRRB decisions

Dene hé Móla Gokedó (Dene and English Languages)

In adopting Dene concepts related to wildlife conservation, it is also necessary to adopt Dene gokedó terms that are the vehicles for the concepts. The terminology used in this document does not attempt to reflect the various dialects of the Sahtú. Rather, it draws upon concepts used in Déline's *Belare wile Gots'é Pekwé* plan, as well as some terms contributed by SRRB Board members in completing this Report. Of note are the different terms that were used for barrenground caribou in the Report. Whereas Déline Got'ine use the term rekwé (used in this Report), the term in K'áhsho Got'ine dialect is redo and in Shúhta Got'ine dialect is repé.

The SRRB encouraged Dene witnesses to speak their language at the Bluenose East (BNE) ?ekwé Hearing. Fibbie Tatti and Laura Tutcho, both highly trained and experienced professionals, provided simultaneous interpretation in Dene language and English (depending on the language of the witness) using equipment and sound services provided by Pido Productions. The simultaneous interpretation posed challenges for precise and fulsome explanations of technical or culturally specific terms. ¹⁴ The Hearing Chair provided opportunities for witnesses to repeat themselves or explain concepts as required.

Tscript.com Digital Transcription Services provided certified transcripts from an audio recording of the English language witnesses and English interpretation of Dene language witnesses. Given the requirement for certification for this legal proceeding, it was only feasible to provide English transcriptions with phonetic transcription of a limited number of Dene language terms used. In order to ensure accessibility for Dene language witnesses, the Dene language audio track was recorded and posted to the SRRB public registry. The transcript reflects short periods where there were technical problems in recording English interpretations (for example when the recording channels were not switched when the witnesses switched language).

The following Word Cloud was generated based on a count of the top twenty substantive terms used in the English language transcript.

¹⁴ The challenges in cross-cultural interpretation are longstanding and were expressed in various ways during the hearing. Eg. M. Neyelle, Dél₁ne witness, Hearing Transcript March 1 (209:8-13), PR 5.01.

FIGURE 1: WORD CLOUD - TOP TWENTY WORDS FROM THE SAHTÚ BLUENOSE EAST ?EKWÉ HEARING TRANSCRIPTS (ENGLISH LANGUAGE), DÉLINE, MARCH 1-3, 2016. 15



Dene hé Móla Gonáoweró (Traditional Knowledge and Science)

Some community witnesses in the Hearing expressed concerns that decisions by tįch'ádíı (wildlife) management authorities tend to be science-driven. The SRRB's policy on Dene náowerá (traditional knowledge) indicates that "the Board is committed to a management system that takes direction from the people closest and most dependent on the resources being managed" and that comprehensive management decisions involve "equal parts traditional and scientific knowledge." The SRRB's *Rules for Hearings* provide that "the Board will encourage the provision of and will consider information provided by Elders and traditional knowledge, including oral history and local knowledge, submitted during a Hearing."

Scientific evidence is often comprehensively provided in writing. Dene náowerá, on the other hand, is a way of life, conveyed in practice, ¹⁹ and in stories passed on from generation to generation. Definitions of Dene náowerá vary in scope, and indigenous community members may draw on a variety of knowledge sources. For this reason, Dene náowerá also refers to local,

¹⁵ The Word Cloud was created using NVivo qualitative analysis software. It does not reflect the amount of Dene language that was spoken by Hearing witnesses, but rather an English language approximation of concepts that were used in both languages. Note that Dene words were used to represent easily recognizable concepts, such as 2ekwé for caribou.

¹⁶ Eg. N. Barichello, Colville witness, HT March 2 (111:10-11), PR 5.02. Parties and the SRRB's technical experts in the hearing also referred to the work of Paul Nadasdy "'It's Not Really 'Knowledge' at All, It's More a Way of Life'," in *Hunters and Bureaucrats: Power, Knowledge, and Aboriginal-State Relations in the Southwest Yukon*, UBC Press, 2003. As cited in A. Legat. 2016. SRRB Technical Review - Dél_lne Belarewílé Gots'é ?ekwé Plan. PR 3 18

¹⁷ SRRB Operating Procedures Section 3.8, PR SRRB Rules-Guiding Documents 4.

¹⁸ SRRB Rules for Hearings Section 12.18, PR SRRB Rules-Guiding Documents 5.

¹⁹ Eg. E. Blondin-Andrew, Sahtú Secretariat, Inc, HT March 1 (259:9-15), PR 5.01.

experiential or community knowledge. Science is often published in reports and journals and thus is easily accessible, but Dene náowerá may be held in confidence by knowledge-holders to be shared carefully.²⁰ Special efforts may be required to ensure that the evidence is appropriately balanced. Moreover, extra effort is needed to properly interpret Dene náowerá across cultures. Even Dene sometimes require years to fully understand the teachings of an elder.

Some Dene náowerá is conveyed in *Belare wile Gots'é ?ekwé*. Additional Dene náowerá and experiential knowledge was shared by community panels at the Hearing and in written submissions. The ENR plan recognizes "the importance of increased communication and engagement with communities and harvesters about the status of the caribou herds and about management actions underway."²¹

The SRRB obtained technical assistance from a Dene Náowerá Advisor (Allice Legat) and a Science Advisor (Colin Macdonald) to supplement evidence provided by the proponents and the Parties. ²² Both advisors provided written submissions; Colin Macdonald also contributed an oral presentation to the Hearing. In addition, the SRRB reviewed Dene náowerá and science provided as evidence through the WRRB Hearing proceeding – including a Science Technical Session on March 17, and a Dene Náowerá Technical Session on March 22, as well as oral and written submissions.

Report Structure

This Report is structured according to topics and themes arising from the Hearing proceedings. There are four key topics addressed in the Report, identified as Parts A-D:

Part A: ?ekwé hé Dágóht'e (Caribou Status)

Part B: ?edets'é K'áots'erewe (Governance)

Part C: Dánít'a 2ekwé k'éts' îne gha daradé? (Causes of Decline)

Part D: Náts'ezé (Harvesting)

Each topic includes a series of key themes which were reviewed by the SRRB with respect to the available Dene náowerá and scientific evidence as the basis for decision-making. The SRRB considered two types of decisions arising from the evidence: 1) Research Priorities and 2) Policy Priorities. Thus the decisions are grouped by topic, theme, and type. There are a total of 14 themes and 39 decisions. Of these, 11 are Research Priority Decisions and 28 are Policy Priority Decisions. The SRRB's decisions provide relevant governments with a basis for setting program and funding priorities for 2ekwé conservation initiatives in the Sahtú Region.

²⁰ Eg. J. Kochon, Colville panel, HT March 2 (233:22-234:19), PR 5.02.

²¹ ENR. 2016 (January 11), supra, footnote 2, 2.

²² SRRB. 2016 (March 1-3). Notice Regarding Experts Engaged by the SRRB Bluenose East ?ekwé Public Hearing. PR 1.13.

The extent of the SRRB's review varies depending on whether it is a point of contention or a new area of innovation that requires more careful consideration. An example of the latter is Theme 4 – Dene hé Métis hé ?edets'é K'áots'erewe (Community Self-Regulation). When Dene witnesses refer to community self-regulation, they are referring to the complex beliefs and norms followed by Dene communities in their relationship with 2ekwé. This requires extensive discussion in this Report, as it is a key foundation for some of the SRRB's decisions.

References

This document reflects the SRRB's effort to make decisions that are fair, and solidly grounded in both Dene náowerá and scientific evidence. In order to make the basis for the decisions as transparent as possible, the Report tracks the many publically available materials that were reviewed by the SRRB in a series of footnotes. These include items that were posted in various folders on the SRRB public registry (PR) at www.srrb.nt.ca, as well as select documents from the published academic literature pertaining to the Report's key themes.

References are footnoted, and items posted on the PR are identified by folder and item number – with the exception of the *Sahtú Dene and Métis Comprehensive Land Claim Agreement* (SDMCLCA, 1993), which is cited throughout (and can also be found in the PR). "Supra" is used for references that have been cited more than once – the full reference can be found in the first footnote. "Ibid." is used for a reference that is the same as the previous citation.

The Hearing record closed on May 20, 2016, but the SRRB shared update letters on June 16 and July 13, 2016, and exercised its discretion to take notice of three additional relevant documents that were not available prior to the closing of the record. The following documents were distributed to the Parties and posted to the PR on July 13, 16, and 21 respectively:

- Kugluktuk Hunters and Trappers Organization. 2016 (May 27). "Submission to Nunavut Wildlife Management Board," PR 3.11.
- ENR. 2016 (July 15). "Summary of Bathurst and Bluenose-East caribou herd survey results," PR 3.06.
- Colville, 2016 (July 16). "Supplemental Submission", PR 4.04.

There are also many references to the Hearing Transcripts (HT). These are available in PR folder 5, and transcripts for each day are identified by date and file number. Page and line numbers are provided in parenthesis. Quotations have been very lightly edited for readability.

Key Terms and Acronyms

From this point onwards, several of the Dene terms, because of their frequency of use and fundamental significance to incorporating Dene into this discussion, will not be translated throughout the Report. These terms are:

- ?ekwę́ (caribou)
- Dene náoweré (traditional knowledge)
- ?ehdzo Got'ınę (Renewable Resources Council also occasionally referred to in documents and by witnesses as RRC)

Déline's *Belare wile Gots'é ?ekwé – Caribou for All Time* community action plan for ?ekwé, submitted to the SRRB on January 8, 2016, is often referred to as the Déline plan.

Otherwise, Dene words and phrases are translated upon the first instance of occurrence in each section of the Report, and then are used consistently and exclusively in Dene throughout the rest of that section. However, Dene words and phrases are translated in all Hearing decisions, to ensure full clarity. The "technical" translation only is provided in the main text. The Dene-to-English Glossary (see Appendix 2, starting on page) of this Report includes more literal translations or explanations. An alphabet and pronunciation key is provided as an appendix to the Dél_lne plan.²³

Acronyms are used to identify agencies, species, and a number of other frequently-referenced subjects in this Report. These subject-acronym pairs are defined once, upon first instance of occurrence. They are then frequently identified by acronym throughout the rest of the Report. A list of key terms and acronyms is provided as Appendix 1 (starting on page 100) of this Report.

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²³ DEWG, supra, footnote 3, Appendix B, 33.

Part A: ?ekwé hé Dágóht'e (Caribou Status)

This section of the report focuses on the question of how 2ekwé are doing, by way of evidence related to two themes:

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Hearing Theme 1 – Ayı́ı ?ekwé Qt'e? (Herd Definition)
Hearing Theme 2 – ?ekwé K'éts'ıne gha Daradé? (Population Trends)
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There are two decisions related to this topic – one Research Priority and one Policy Priority decision. These decisions help to set the stage for all the other themes considered in this report.

Hearing Theme 1 – Ayı́ı ?ekwé Ot'e? (Herd Definition)

Defining 2ekwé populations is one of the "Hot Topics" in the *Taking Care of Caribou* management plan. ²⁴ The question of ayíı ot'e (caribou herd definition) is important when assessing 2ekwé status and trends, and when determining the need for and nature of conservation actions. Different herds may be assessed as having a different status and/or travelling in different areas. These factors may make a significant difference to the people who live with and share 2ekwé across regions. In the Sahtú Region, 2ekwé travel along the east side of Great Bear Lake, and northeast of the lake. Scientists call these Bluenose East (BNE) and Bluenose West (BNW) caribou, respectively. Scientists also indicate that there are Bathurst 2ekwé that occasionally travel through the Déline District of the Sahtú Region.

Dene Náowerá Evidence

Within the Sahtú, communities, zekwé (Délįnę Got'įnę), zedə (K'áhsho Got'įnę) and zepę́ (Shúhta Got'įnę) are the terms most often used to refer to barren-ground caribou in general. While these communities consistently differentiate between zekwę́, todzi (boreal woodland caribou), and shúhta gozepę́ (mountain caribou), they do not have terms for BNW and BNE zekwę́. Relationships with caribou are place-based²⁵ and communities are responsible for caribou in their established harvest areas. People may therefore refer to zekwę́ by the traditional names of the places that they travel or feed at specific times of year, rather than using range-wide science-based names such as BNW and BNE.

The Déline plan indicates that:

...for the purposes of cooperating in regional planning we accommodate the scientific differentiation of the herds, but Déline elders continue to believe that 2ekwé travelling through the District should be considered one population. We feel that this has an

²⁴ ACCWM, supra, footnote 10, 17, PR 3.20.

²⁵ This was an important theme in hearing contributions by W Bayha; eg. HT March 2 (50:4-54:19), PR 5.02.

additional strength in highlighting the importance of building relationships across boundaries for sharing 2ekwé and responsibilities for conservation.²⁶

This would apply respectively to the herds known to scientists as BNE and BNW, as well as the Bathurst herd that at times travels into the Délįnę District. Similarly, Colville has clearly indicated that Dela Got'įnę "do not distinguish between Bluenose East and Bluenose West caribou," and use the terms only "for the purpose of interacting with western scientists and managers in this Hearing." ²⁷

Tulít'a Chief Frank Andrew mentioned the possibility that groups from one herd may join another, thus affecting population counts. ²⁸ Colville noted that "a small number of Bluenose East caribou have been identified as occasionally passing through the Arake Tue [Horton Lake] area." "Exchange or Movement between Caribou Herds" was a Hot Topic discussed in the *Taking Care of Caribou* plan. ³⁰

There was testimony at the Hearing about the historical and present practices of travelling long distances to gather in areas where the caribou are. The SRRB heard evidence that ?arakə Túé, ?ehdaıla (Caribou Point), and ?ıts'ere Túé (Hottah Lake) are special gathering places for Délınę Got'ınę, K'áhsho Got'ınę, Tłıcho, and Inuvialuit peoples, where people learned each other's languages, celebrated, and made decisions collectively. In the words of Délınę witness Walter Bayha, "We had huge gatherings, children, women, men, everybody is there and they're making decisions." The SRRB heard evidence about the Dene Mapping Project sponsored by the Dene Nation in the 1970s, which generated trails data and which also show evidence of historical overlapping land use, including trails specifically used to harvest 2ekwé; further research is needed to interpret this data. 32

Although Dene language does not differentiate among 2ekwé herds, a rich vocabulary of specific technical terms refer to the identities of animals within the herd, including tsída (female), yárégo (younger/smaller male), and bedzio (older/bigger male).³³ This appears to be similar to caribou terminology in other regions and languages.

²⁶ DEWG, supra, footnote 3.

²⁷ Colville, Final Public Hearing Submission, PR 4.02.

²⁸ HT March 2 (193:25-194:1-2), PR 5.02.

²⁹ Colville, supra, footnote 26.

³⁰ ACCWM, supra, footnote 10.

³¹ HT March 2 (110: 1-3), PR 5.02.

³² The SRRB is now completing a project to repatriate the data provided by Sahtú communities, in partnership with the Dene Nation and SSI.

³³ DEWG, supra, footnote 3, 1v-v.

Scientific Evidence

BNE 2ekwé (*Rangifer tarandus groenlandicus*) is one of several herds in northern Canada that are referred to scientifically as migratory barren-ground caribou. They differ genetically from todzı (boreal woodland caribou - *Rangifer tarandus caribou*) but are genetically indistinguishable from Grant's caribou (*Rangifer tarandus granti*) of the Porcupine and Alaskan herds. This genetic differentiation is generally consistent with the concept of ecotypes of barren-ground, boreal and mountain caribou currently used for conservation purposes. The several herds in northern Canada that are referred to scientifically as migratory barren-ground caribou. They differ genetically from today are genetically from today.

Designation of the BNE and other migratory zekwé herds is based on the strong affiliation of tsída (females) within the herds, and the migration of the herds over long distances to annually return to areas with some protection from predators and suitable habitat for calving.

The separation of 2ekwé (caribou) in the Sahtú Settlement Area into three distinct herds, named the Cape Bathurst, Bluenose East and Bluenose West herds, is based on tracking radio-collared tsída during the annual cycle of migration, birthing, post-calving and over-wintering over a span

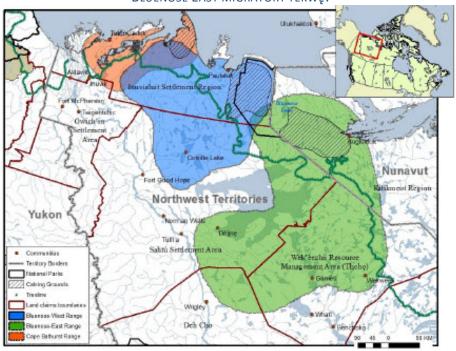


FIGURE 2: OVERLAPPING RANGES OF CAPE BATHURST, BLUENOSE WEST AND BLUENOSE EAST MIGRATORY ?EKWE.

³⁴ B.V. Weckworth, M. Musiani, A.D. McDevitt, M. Hebblewhite and S. Mariani. 2012. Reconstruction of caribou and evolutionary history in western North America and its implications for conservation. *Molecular Ecology* 21: 3610-3624.

³⁵ J.A. Nagy, D.L. Johnson, N.C. Larter, M.W. Campbell, A.E. Derocher, A. Kelly, M. Dumond, D. Allaire and B. Croft. 2011. Subpopulation structure of caribou (*Rangifer tarandus* L.) in arctic and subarctic Canada. *Ecological Applications* 21:2334-2348. As cited in C.R. Macdonald. 2016. SRRB Final Technical Review - Science Advisor Colin Macdonald, PR 3.17.

of several years.^{36, 37} Tsída remain strongly affiliated with other tsída in the same herd and, although small areas of overlap in the range of the two herds occur north of Great Bear Lake³⁸ (Figure 2, 13),³⁹ tsída return to ?ekwé né golek' ó (the calving grounds) of each respective herd during migration.⁴⁰

Small numbers of individuals move between the herds. ⁴¹ But, according to scientists, the separation of the herds into patterns of movement on the western and eastern sides of Great Bear Lake, ⁴² and their sustained annual return to significant areas within the Sahtú, such as ?ehdaļla, ?arakə Túé and ?its'ere Túé, indicate that the herds can be protected and managed individually. Genetic studies support the view that the barren-ground herds are genetically similar, distinct from boreal caribou (*Rangifer tarandus caribou*) and share a common ancestry with the Northern Mountain ecotype. ⁴³

Balance of Evidence

Both Dene náowerá and science demonstrate that there is seasonal mixing of zekwé that travel on the east and northwest sides of Great Bear Lake within the Sahtú Region, and there has also been parallel mixing of indigenous peoples. Dene náowerá and scientific understandings of zekwé distribution and use of space do not conflict, and evidence indicates that notwithstanding the strong herd affiliations of tsída, the herds are genetically very similar. This similarity is reflected in Dene use of a common term for all – zekwé – barren-ground caribou. Although both Dene náowerá and science on the question of ayíı zekwé ot'e bear further research, the evidence provided at the Hearing, including the *Taking Care of Caribou* plan, supports distinguishing between BNE and BNW herds for the purpose of determining conservation actions.

³⁶ Macdonald, supra, footnote 34, PR 3.17.

³⁷ Ibid.

³⁸ ACCWM, supra, footnote 10, 5.

³⁹ The ranges in this map have been defined by tracking radio-collared tsída over a number of years. The 2ekwé négo lek'ó (calving ground) for Bluenose East 2ekwé is indicated by the hatched area to the immediate west of Kugluktuk in Nunavut. ACCWM, supra, footnote 10; Macdonald, supra, footnote 34, PR 3.17.

⁴⁰ ENR, supra, footnote 2, 7.

⁴¹ J. Boulanger, B. Croft, A. Adamczewski, A. Lee, N. Larter and L.M. Leclerc. 2016 (February). *An estimate of breeding females and analyses of demographics for the bluenose-east herd of barren-ground caribou: 2015 calving ground photographic survey*. Review draft. As cited in C.R. Macdonald. 2016. SRRB Final Technical Review - Science Advisor Colin Macdonald, PR 3.17.

⁴² Macdonald, supra, footnote 35, PR 3.17.

⁴³ Weckworth et al., supra, footnote 34.

Research Priority

Hearing Decision 1

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) finds that further Dene náowerá and genetics research is required to address questions regarding zekwé herd structure and distribution.

Policy Priority

Hearing Decision 2

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) finds that current evidence supports the distinction made between Bluenose East and Bluenose West ?ekwé herds. The SRRB finds that using this distinction also assists in facilitating cross regional conservation actions and sharing. The SRRB will therefore continue to base current management decisions on the understanding that Bluenose East and Bluenose West ?ekwé should be treated as distinct herds.

Hearing Theme 2 – ?ekwé K'éts'įnę gha Daradé? (Population Trends)

The SDMCLCA protects the rights of Sahtú Dene and Métis beneficiaries to harvest Sahtú gotựch'ádíı (wildlife of the Sahtú Region) and participate in decision-making about harvesting and management of Sahtú gotựch'ádíı. ⁴⁴ The agreement also includes two complementary conservation objectives that represent conditions for exercising Dene and Métis rights for the wellbeing of people and the environment:

- 1.1.1(c) to recognize and encourage the way of life of the Sahtú Dene and Métis which is based on the cultural and economic relationship between them and the land;
- 1.1.1(h) to protect and conserve the wildlife and environment of the settlement area for present and future generations;

The word "conserve" comes from the Latin *con*-, together, and *-servare*, to keep – so to conserve means "to keep together." This fits with indigenous views that everything is connected, including people and all living things. When there is a proven conservation concern, meaning the present and future wellbeing of Sahtú gottch'ádít may be gogha horíla (at risk), the SRRB must act.

⁴⁴ SDMCLCA 1.1.1(f, g).

The Déline and ENR plans both indicate that there is a conservation concern regarding the BNE 2ekwé herd. By weighing evidence, including factors that show BNE 2ekwé k'éts'ine gha daradé (population trends), it is possible to check whether and to what extent there is a conservation concern.

The SRRB participates in ACCWM, the voluntary organization that brings together the wildlife management boards in the north to exchange information and coordinate wildlife planning. As an ACCWM member, the SRRB helped develop the *Taking Care of Caribou* plan⁴⁵, which identifies a variety of community-based and scientific criteria used to assess 2ekwé k'éts', îne gha daradé, including:

- 1. Population size
- 2. Population trend and rate of change
- 3. Productivity and recruitment
- 4. Adult composition
- 5. Body condition and health
- 6. Harvest levels
- 7. Predator populations
- 8. Range and movement patterns
- 9. Environment and habitat
- 10. Human disturbance

At its first annual status meeting on December 18, 2015, ENR presented information about criteria 1-6 to the ACCWM (though the information related to item 6, harvest levels, was noted to be uncertain). Information was not provided for items 7-10.

The *Taking Care of Caribou* plan also established a system of thresholds for assessing Bluenose herds and identifying corresponding management actions. The following figure shows the thresholds for the BNE herd.

Presently, ACCWM members, including the SRRB, are considering whether BNE 2ekwé fall in the "orange zone," intermediate and decreasing. The Sahtú BNE 2ekwé Hearing provides invaluable evidence to assist the SRRB in making a decision. The SRRB also considered the concerns expressed by many community witnesses about the collaring method used to locate 2ekwé for the purpose of monitoring.

Dene Náowerá Evidence

Although the Déline plan accepts that there is a conservation concern, the document does not directly address the question of whether BNE 2ekwé are within their natural cycle or "range of variation" – or whether they are declining more than usual. As Colville reminded us, a goal of

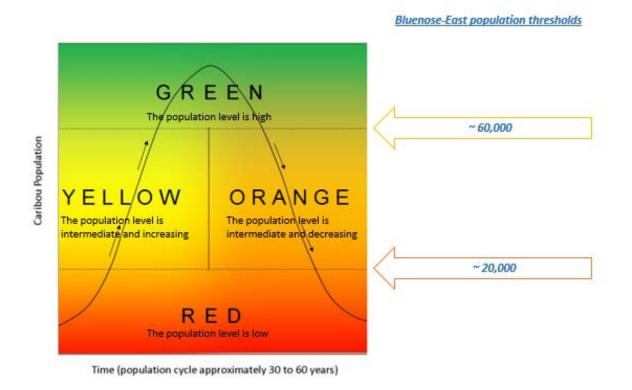
⁴⁵ ACCWM, supra, footnote 10, 17, PR 3.20.

the *Taking Care of Caribou* plan is to "maintain herds within the known natural range of variation."

According to the ACCWM's 2014 "We Have Been Living with Caribou All Our Lives" community engagement report (which compiles the results of meetings held in seventeen communities and six land claim areas), ⁴⁷ "People that took part in the community engagement sessions consistently said that caribou do cycle in abundance and change where they go from time to time." ⁴⁸

At the SRRB Hearing, there was less clarity of consensus among the Dene and Métis witnesses on the question of whether there is currently a long-term declining trend that requires special conservation actions. After hearing scientific evidence at the BNE Hearing from ENR about declining populations, community witnesses often spoke about factors that may be negatively impacting 2ekwé populations. ⁴⁹ However, Colville stated that they do not accept ENR population models for the BNE herd, and maintained "there is not enough evidence to indicate that there is

FIGURE 3: PHASES OF THE POPULATION CYCLE WITH THE COLOUR-CODED "TRAFFIC LIGHT" APPROACH AND THRESHOLDS FOR BNE 7EKWE IDENTIFIED IN THE TAKING CARE OF CARIBOU PLAN. SOURCE: ACCWM WORKING GROUP DRAFT BLUENOSE FAST ACTION PLAN. (JULY 6, 2016)



⁴⁶ ACCWM, ibid, 12.

⁴⁷ Companion to ACCWM, *Taking Care of Caribou*, compiled Sahtú information, 2014, PR 3.22.

⁴⁸ ACCWM, supra, footnote 10, 8.

⁴⁹ Eg. M. Neyelle, HT March 1 (206:3-212:21), PR 5.01.

in fact a conservation issue that would be responsive to management interventions, rather than natural cycle in the caribou herd."⁵⁰

Community witnesses in the Hearing challenged the scientific assumption that population numbers are a key indicator of a conservation concern. Colville noted that population numbers "offer few clues as to what factors are influencing population change." Délįnę witness Walter Bayha thanked ENR for providing "good numbers," but went on to say that numbers by themselves don't give us solutions⁵² "we really need to look at everything, not just counting caribou and looking at the population." In the words of Colville witness David Codzi, "This is not a numbers game." ⁵⁴

Colville residents' emphatic resistance to a numbers-only assessment of caribou points to a traditional emphasis on the importance of healthy ecological systems or relationships rather than numbers. Dene náowerá encompasses habitat, other species, people, and the balance between these elements serves as their basis for assessing 2ekwé k'éts'įnę gha daradé. The two keystone stories in the Délįnę plan, "?ekwé ?e2a –Law of the Caribou" and the story of the meeting between ?ekwé and Díga (Wolf)⁵⁵ provided insights into Dene concepts of systems that support healthy 2ekwé populations.

There is recognition among Sahtú communities that poor human behaviour is an indication that rekwé are not doing well. In an ACCWM community engagement report, a Colville participant offered a reminder of the oft-repeated teaching: "The elders say that the cycle might be low when they are being disrespected, such as when you hit them with a stick and then the caribou go away for seven or eight years." The ACCWM report also referred to Déline observations that the harvest had declined in recent years because rekwé were too far away. A witness from Déline warned, in the ACCWM report, that it's important to watch for signs of changing populations: "Maybe in the future – in 20 or 30 years – the caribou will go down again. The elders have beliefs, signs that something is going to happen to the caribou. There are other signs too about what is going to happen to the caribou. Sometimes there are signs that it will be a good harvest of caribou, but you see signs from the ptarmigan or the grouse that will tell you that there will be no caribou there – if you don't look at these signs, you will starve." Sometimes there are signs that it will be a good harvest of caribou there – if you don't look at these signs, you will starve."

⁵⁰ Colville, supra, footnote 26, 5.

⁵¹ Ibid.

⁵² HT March 1, (95:17-18), PR 5.01.

⁵³ HT March 2 (201:508), PR 5.02.

⁵⁴ HT March 2 (239: 12-13), PR 5.02.

⁵⁵ DEWG, supra, footnote 3, 3, 5.

⁵⁶ ACCWM, supra, footnote 10, 10. For an additional discussion of the Dene concepts of respect as a factor in ecological health, see Jane Modeste. 2005. *Dene Ways of Respecting the Land and Animals*, Dél_μnę First Nation. ⁵⁷ ACCWM, ibid, 32.

⁵⁸ Ibid.

Communities in other geographic areas, including the Wek'èezhìı, Gwich'in, Inuvialuit regions in the NWT, and in the Territority of Nunavut, have expressed grave concerns about the status of BNE 2ekwé. Based on community engagement, wildlife management authorities in all other regions have formally accepted that there is a conservation concern and that conservation actions are required. For example, the Kugluktuk Hunters and Trappers Organisation recently submitted an Integrated Community Caribou Management Plan (ICCMP), developed in consultation with the Kitikmeot Inuit Association, in the current Nunavut Wildlife Management Board Hearing on BNE. The Kugluktuk ICCMP does not discuss BNE 2ekwé status, but does identify a number of conservation actions indicating agreement that there is a concern. ⁵⁹ This mutual concern has considerable relevance for the SRRB Hearing process, as the BNE 2ekwé with which our hearing is concerned calve near Kugluktuk.

A topic of great concern for community witnesses at the Hearing was the use of collars by biologists to locate 2ekwé groups for monitoring surveys. This concern has been consistently expressed to the SRRB over the years. At an ?ehdzo Got'ıne Gathering in Fort Good Hope in 2013, a consensus resolution was passed that "Sahtú Dene and Métis elders and harvesters do not support caribou collaring as a research method, since it is disrespectful to the caribou and affects caribou health." A consensus resolution was passed at the Sahtú Secretariat, Incorporated (SSI)⁶¹-SRRB ?ekwe Leadership meeting in 2015 that "we the undersigned oppose the use of collars for monitoring wildlife, and instead support the use of the knowledge of the RRCs and the hunters."

At the Hearing, Colville Chief Wilbert Kochon said that ?ewké are very sensitive, and an individual may be become an outcast if handled by people. Chief Kochon went on to explain that ?ekwe experience collars as a person would:

I always think about when you net cows and touch them it's not good. And I know how the animal feels. It's just like you, you're doing that, netting me and touching me. I don't think so. I don't think they like that. ⁶³

Fort Good Hope witness Frank T'seleie voiced concerns expressed by elders about various methods used by scientists requiring handling caribou – symbolized by the old method of taggingand questioned the utility of such methods:

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⁵⁹ KHTO. 2016 (May 27). Submission to the Nunavut Wildlife Management Board on the Government of Nunavut proposed Total Allowable Harvest of 340 Bluenose east Caribou, PR 3.11.

⁶⁰ Renewable Resources Council Gathering. 2012 (September 18). Caribou Research Resolution, SRRB, PR 3.12.

⁶¹ The Sahtu Secretariat Incorporated was formed by the seven Sahtú Land Corporations (four Dene Land corporations and three Métis Land Corporations) on June 23, 1994, with the enactment of the Sahtú Dene and Métis Land Claims Settlement Act (SDMCLCA). Provisions in the SDMCLCA include the power to establish implementing bodies that are responsible for a range of services and activities within the Sahtú Settlement Area.

⁶² SSI and SRRB. 2015 (April 22-23). Caribou Meeting Record, PR 3.13.

⁶³ HT March 1 (146:14-25, 147:1-5), PR 5.01.

I would like to address the method that the scientists use in studying wildlife. Time and time again, I always hear our Elders, our senior advisors, speaking against things like tagging wildlife. We are raised, you know, from the time we're children to respect wildlife. And tagging them I don't think does anything.⁶⁴

Colville witness David Codzi advocated an alternative means of monitoring 2ekwé populations, and testified that 2ehdzo got'ıne (harvesters) are able to locate caribou by travelling on the land "in the traditional manner, without the use of collars on caribou."

There has been active support in the Sahtú for non-invasive types of data collection to learn about 2ekwé through co-production of knowledge engaging Dene náoweré and science. Déline and Colville have both participated in a fecal sampling program as part of the 2ekwé populations study led by Jean Polfus, and several community members have been co-authors on published research papers resulting from this study. 66 Both communities have also participated in the University of Calgary and ENR 2ekwé health sampling program led by Susan Kutz. 7 The "Déline ?ekwé Code," appended to the Déline plan and detailed in Theme 14 – Enforcement of Náts' ezé ?e2a (Harvest Code)— stated that "2ehdzo got'ine [(harvesters) are] required by the community to bring back health sample kits, including documentation."

Scientific Evidence

The scientific evidence for the decline of BNE 2ekwé presented by ENR⁶⁹ is based on population and demographic surveys conducted since 2010. The studies presented show a marked decline in the herd size, and indicators of herd productivity and body condition of tsída (females) to be below the levels needed for the herd to remain stable, or to recover. Photographic surveys take place in June during calving by tracking 20-30 collared tsída (females) to ensure that all the tsída in the herd have been counted. Compositional surveys conducted at other times of the year provide data on the proportion of bedzio (males) and tsia (calves, yearlings) present. These data are used to estimate total herd numbers and the overall status of the herd. The methods used by ENR have been independently reviewed⁷⁰ to ensure that enough collars are used, so that no large groups are missed during the survey at 2ekwé né golek'á (calving grounds), and that appropriate

⁶⁴ HT March 2 (208:22-25, 209:1-4), PR 5.02.

⁶⁵ HT March 2 (250:2-5), PR 5.02.

⁶⁶ J. L. Polfus, M. Manseau, D. Simmons, M. Neyelle, W. Bayha, F. Andrew, L. Andrew, C. F. C. Klütsch, K. Rice, and P. Wilson. 2016. Łeghágots'enetę (learning together): the importance of indigenous perspectives in the identification of biological variation. *Ecology and Society* 21(2):18. http://dx.doi.org/10.5751/ES-08284-210218.

⁶⁷ R. K. Brook, S. J. Kutz, A. M. Veitch, R. A. Popko, B. T. Elkin, G. Guthrie. 2009 (June). Fostering Community-Based Wildlife Health Monitoring and Research in the Canadian North. *Ecohealth* 6(2):266-278.

⁶⁸ DEWG, supra, footnote 3, Appendix E, 30.

⁶⁹ Macdonald, supra, footnote 41.

⁷⁰ J. T. Fisher, L.D. Roy and M. Hiltz. 2009. *Barren-ground caribou management in the Northwest Territories: an independent peer review*. Alberta Research Council. Vegreville, Alberta. 53 pp.

statistics and interpretation are used to estimate key metrics such as herd productivity, the survival of tsída and recruitment of tsía.

Surveys of BNE 2ekwé since 2010 have shown a drastic decline in total numbers, from over 100,000 in 2010 to 38,592 in 2015⁷¹ (see Figure 4, page 22). The rate of decline since the 2013 survey was about 20% per year. The number of adult tsída, the age group of most concern due to their productivity, declined from 51,727 in 2010 to 17,396 in 2015. A reconnaissance survey conducted in June 2016 on the BNE calving grounds reported 18,536 1+ year 2ekwé, for a decline of 8.4% since the 2015 survey. Although the error estimate was very high in 2016 due to the type of survey and the high aggregation of the 2ekwé, ENR indicates that the herd is continuing to decline. The decline observed in the BNE herd is similar to that observed in the BNW and Bathurst herds in the mid-2000's 73.

The 2015 survey also showed several indicators of the health of the herd to be below the levels at which the herd can remain stable or begin to increase in number. Adult tsida and yearling survival in 2015 was estimated at 71%, much lower than the 80-85% required for the herd to recover. This measurement includes losses of tsida due to harvesting and predation. Tsia survival and tsida pregnancy rates are well below the values required for a stable, let alone recovering, herd. The 2015 assessment suggests that, unless there is a change in the survival and productivity of the herd, the herd numbers will continue to decline, and may fall into the "red zone," identified by the *Taking Care of Caribou* plan⁷⁵ (total herd size of <20,000), by the next detailed survey in 2018. This conclusion is consistent with the results of the 2016 reconnaissance survey.

ENR uses 2ehdzo got'įnę-collected (harvester-collected) tissue samples to monitor the health and general condition of members of the BNE herd. These samples provide a valuable tool to determine a "snapshot" of pregnancy rates, presence of disease, amount of body fat and other general health indicators of individual animals. Body condition is directly correlated with pregnancy, and large amounts of body fat and low presence of disease tend to indicate higher pregnancy rates, essential for a recovering herd. These programs provide a valuable opportunity for 2ehdzo got'įnę to be partners with government programs by providing critical knowledge of the harvested animal and its general condition and samples for more detailed analysis.

⁷¹ Macdonald, supra, footnote 41.

⁷² ENR. 2016 (July 15). Summary of Bathurst and Bluenose-East caribou herd survey results. PR 3.06. As the cover letter accompanying this report explains, "Photo surveys are done every three years on these two herds. In the years between photo surveys, ENR conducts reconnaissance surveys. While reconnaissance surveys are not as precise as a photo survey, they still provide a reliable indicator of changes in the size and location of the calving grounds from year to year and the number of cows on the calving grounds."

⁷³ Macdonald, supra, footnote 41.

⁷⁴ Ibid.

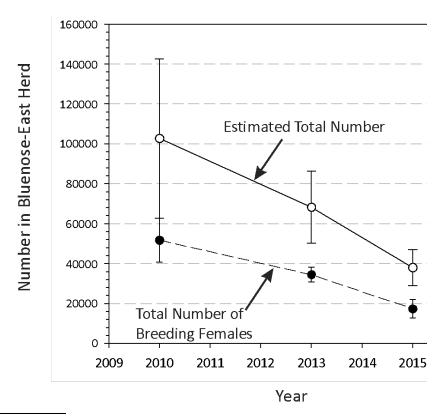
⁷⁵ ACCWM, supra, footnote 10.

ENR also relies on radio-collars on 20-30 tsída and a number of bedzio (males) to determine the location of groups of individuals for surveys and the survival rates of individuals. ⁷⁶ In general, more collared individuals increase the precision of estimates of herd size and survival of individuals. ⁷⁷ Heavy collars used in the past may reduce the survival of collared tsída; however, new technology has significantly reduced the size of the collars. At present, collars provide information that is consistent with methods used in the past, enabling ENR to look for and assess long-term trends. ENR witness Bruno Croft stated that ENR aims to reduce stress on 2ekwé to a minimum, and welcomes suggestions for alternate methods to locate 2ekwé. ENR has explored the use of drones as an alternative, but to date this has not proven successful. ⁷⁸

Balance of Evidence

Notwithstanding conflicting evidence about methods used for monitoring 2ekwé, both the Déline and ENR plans support evidence that BNE 2ekwé populations are declining and that there is a conservation concern. This finding has also been confirmed by the WRRB and Tłicho

FIGURE 4: ESTIMATED TOTAL NUMBER IN THE BLUENOSE EAST (BNE) HERD AND THE NUMBER OF BREEDING FEMALES IN SURVEYS CONDUCTED BY ENVIRONMENT AND NATURAL RESOURCES SINCE 2010. BARS INDICATE THE 95% CONFIDENCE INTERVAL



⁷⁶ Macdonald, supra, footnote 41.

⁷⁷ C.R. Macdonald. 2016. SRRB Final Technical Review - Science Advisor Colin Macdonald, PR 3.17.

⁷⁸ HT March 1 (183:9-25, 184:1-8), PR 5.01.

Government as well as Parties at the Nunavut Wildlife Management Board Hearing. The SRRB accepts that the evidence establishes that there is a conservation concern for the BNE 2ekwé.

The *Taking Care of Caribou* plan includes a management goal to "maintain herds within the known natural range of variation." Biologists use this concept to refer to the highest and lowest known 2ekwé populations prior to human disturbance. It uses the idea of a baseline where without any outside interference, 2ekwé herds will expand and contract within limits imposed by their environment (though the concept may be increasingly irrelevant due to changes in 2ekwé ecology due to climate change, development and new harvesting technologies). Furthermore, scientists don't have the historical data required to determine the long term "range of variation" for BNE 2ekwé. However, elders speak of historical times when 2ekwé were scarce. These times may correspond to known declines in herd numbers, or changes in migration routes and usage of 2ededáhk' (habitat). Recent evidence from ENR has shown that the herd has fluctuated from over 120,000 2ekwé in 2000 to 66,754 in 2006, rebounded to 100,000 in 2010 and has since declined dramatically to 38,000. The 2016 assessment on the calving grounds indicates that herd numbers may be continuing to decline. This is consistent with the 2015 ENR aerial survey which showed low pregnancy rates and low tsia recruitment.

The SRRB notes that some 2ekwé herds, such as the Beverly and the Southampton Island herds, have declined to the point of being inaccessible to 2ehdzo got'ıne, and in the case of the Southampton Herd, became extinct and had to be repopulated by 2ekwé from another area.

The *Taking Care of Caribou* plan is guided by what tụch'ádíı (wildlife) managers call the "precautionary principle" for conservation: "in the absence of complete information and where there are threats of serious or irreparable damage, lack of complete certainty shall not be a reason for postponing reasonable conservation measures." Given the uncertainties in the historical record of the natural population range for the BNE, the SRRB chooses to take a precautionary approach on the status of the herd and to assume that numbers could continue to decline in the short-term.

There remain numerous questions about the status of the cultural and ecological systems that sustain 2ekwé populations. Viewed in balance, the SRRB finds that the evidence shows that BNE 2ekwé are not in a crisis, but there is a conservation concern. The evidence also demonstrates that there are a number of new factors affecting 2ekwé that bear consideration, including new harvesting technologies, cultural change, climate change, and industrial development. There is a risk that the decline could continue, and the BNE 2ekwé population could fall into a critical decline as has likely happened with the Bathurst and Cape Bathurst herds.

⁷⁹ ACCWM, supra, footnote 10.12.

⁸⁰ ACCWM, ibid, 60.

There is agreement between community Parties and ENR that 2ekwé monitoring is important for being aware of 2ekwé k'éts' µne gha daradé, and being able to make wise and adaptive decisions as the status of the herd changes. There is also agreement that monitoring should be based on principles of hegerichá gozekwé (respect for caribou). Where views have not been reconciled is with respect to the viable methods available for monitoring. The many questions posed during the Hearing about BNE 2ekwé status, and the lack of information about a number of criteria for herd assessment, indicate that vigorous Dene náoweró and scientific research is needed in this area. Moreover, there appears to be a significant gap between Dene náoweró and science-based research and monitoring processes that may contribute to incomplete and conflicting results and conclusions. Further research is required to achieve truly collaborative approaches to monitoring that are considered valid by both Sahtú communities and scientists.

Research Priority

Hearing Decision 3

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will work with tựch'ádíı (wildlife) management partners to develop a well-rounded community-collaborative Dene náowerá and science-based research and monitoring program in order to provide greater certainty about the status of Bluenose East zekwę́ based on the ten criteria outlined in the Taking Care of Caribou plan developed by the Advisory Committee for Cooperation on Wildlife Management, and approved by the NWT Minister of Environment and Natural Resources.

Policy Priorities

Hearing Decision 4

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) finds that a precautionary approach should be adopted in managing Bluenose East 2ekwé. Dene náowerá and science evidence supports the conclusion that Bluenose East 2ekwé are in the "orange zone," intermediate and decreasing, as identified in the *Taking Care of Caribou* plan developed by the Advisory Committee for Cooperation on Wildlife Management. This means Bluenose East 2ekwé gogha horíla (are at risk), and recovery of the herd is not certain. Based on a precautionary approach, the SRRB finds that a broad range of actions should be taken to support herd recovery and prevent further decline, so that Bluenose East 2ekwé will be present for future generations.

Hearing Decision 5

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) finds that the Dene náoweró and scientific evidence establishes that 2ekwé undergo natural cycles of decline and recovery, and that new social and ecological factors contribute new and unknown pressures that could accelerate decline or prevent recovery.

Part B: ?edets'é K'áokerewe (Governance)

This section considers three themes related to the framework for decision-making in 2ekwé conservation:

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Hearing Theme 3 – ?ekwé ?edets'é K'áokerewe (Caribou Self-Regulation)

Hearing Theme 4 – Dene hé Métis hé ?edets'é K'áokerewe (Community Self-Regulation)

Hearing Theme 5 – ?ełehé ?eghálats'eda (Collaborative Management)
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Hearing Theme 4 is the most detailed section in this report, since it addresses key decisions about the role of communities in zekwé conservation. There are two Research Priority decision, along with six Policy Priority decisions, related to these themes. All six decisions were made with a view to strengthening the overall approach to collaborative zekwé conservation within the Sahtú Region and beyond.

Hearing Theme 3 – ?ekwé ?edets'é K'áokerewe (Caribou Self-Regulation)

The Dél₁ne plan is based on the principle that "2ekwé make their own decisions – we're not the boss of them." The plan adopts the concept of community self-regulation, and although this term is not used with respect to 2ekwé, the complementary principle of ecological self-regulation is consistent with the Dél₁ne approach.

The SRRB examined evidence related to the theme of caribou self-regulation, in relation to both conservation goals and approaches, since there is a possibility that:

- a) the concept of ?ekwé ?edets'é k'áokerewe (caribou self-regulation) conflicts with the concept of "wildlife management" used in the *Sahtú Dene and Métis Comprehensive Land Claim Agreement* (SDMCLCA), and
- b) the principle of caribou self-regulation may have implications for conservation decision-making with respect to BNE 2ekwé.

Dene Náowerá Evidence

The Déline plan asserts the following first 202a (law or principle): Gozó begho gots'ede nidé dzá ot'e (when people talk about 2004). This 202a was repeated by various witnesses at the Hearing as a testament to its importance. The prohibition against talking about

⁸¹ DEWG, supra, footnote 3, 6; Dél₁ne RRC. 2016 (February 27). Responses to WRRB Information Requests, 4, WRRB BNE PR 023, http://www.wrrb.ca.

2ekwé "too much" may prevent inappropriate attempts to control or disrespect 2ekwé, and thus, talking about them "too much" may disturb them.

The 2e2a against controlling caribou is linked to another Dene 2e2a, as Déline community member Gordon Taneton put it, "No soul in the world owns the caribou." Déline witness Morris Neyelle expanded Taneton's view to all of nature: "It's difficult to talk about caribou. We didn't make it. We didn't create it. It has a song and ... you have to take care of it. You can't sell it. We can't make money from it. The same with fish. All wildlife is like that including water." In the words of Colville Chief Wilbert Kochon: "It's something that we can['t] control, no authority over ... it's there to respect."

Conversely, hegerichá (respectful behaviour) when harvesting or talking about caribou can be beneficial for caribou and Dene alike. According to Déline elder Leon Modeste, "When we all look after and respect it, every part of it, it will come back to itself and it'll recreate itself. If we have killed about one hundred caribou, if we respect them all the way we killed it, and respect them all, all one hundred of them will come back to us. Those are the things that our prophets have mentioned to us ... When you talk about the caribou, talk about it very well and respectfully."85

Witnesses explained that talking can be a prayer, a means of maintaining a relationship with 2ekwé⁸⁶, or seeking guidance from 2ekwé. Déline witness Walter Bayha told the SRRB, "Ask the caribou. Talk to them ...That's one of the things my grandfather said ... If things don't work for you, go talk to them. And I think too often we forget that part of our relationship with caribou."⁸⁷

The Dél₁ne plan states that 2ekwé decide when they want to be left alone, and when they want to come back to be harvested. 88 The plan quotes Bayha: "?ekwé are free to roam wherever they want. As Dene, we're also free to roam wherever we want, just like 2ekwé, and there is a relationship between us. We want to continue that good relationship to take care of each other. 89"

The Déline plan invokes the concept of freedom and autonomy for 2ekwé and people alike: "Dene and 2ekwé are free to maintain their relationships through their own 2e2a." At the

⁸² HT March 1 (264:18-19), PR 5.01.

⁸³ HT March 2 (66:3-10), PR 5.02.

⁸⁴ HT March 1 (100:1-4), PR 5.01.

⁸⁵ HT March 2 (137:6-14, 22-23), PR 5.02.

⁸⁶ As with the phrase spoken to a fetus, "?edets'énanede hádé máhsı gha – If only you would go back to your herd, then thank you." DEWG, supra, footnote 3.

⁸⁷ HT March 2 (60:20, 61:1-5), PR 5.02.

^{88 &}quot;Dene zehtséokə say that when they decide to return, zekwé nızah, they make a thundering sound." DEWG, supra, footnote 3, 6.

⁸⁹ DEWG, supra, footnote 3, 4.

⁹⁰ Ibid.

Hearing, Tłıcho Government observer Joseph Judas agreed – in his words, caribou "has no boundaries."91

Scientific Evidence

Scientists consider large 2ekwé herds such as the BNE to be "keystone" species due to the large impact they have on their environment, their extensive interactions with other species, and the critical role that they play in the terrestrial ecology of the tundra and taiga. ?ekwé may be considered to be self-regulating through density dependent factors that occur as the herd goes through high density and low density fluctuations (i.e. peak and low numbers).

One explanation for the large natural fluctuations observed in many of the 2ekwé herds is that, at their peak, the herds consume more forage than can be replaced, due to the low productivity of the arctic environment. 92 This overgrazing leads to poor body condition of tsída (females), and ultimately low pregnancy rates, low ts1a (calf) survival and a decline in herd numbers. A higher incidence of disease is also expected when the herd is at its peak, due to increased transmission of parasites and disease between individuals, particularly when a migrating herd returns to a specific area annually. 93 Numbers of predators, such as diga (wolves), also follow the same general pattern, with numbers of diga falling as the herd declines in size. Note that human harvesting and wildlife predation are generally not considered to be a cause of decline, but may impact the herds in the later stages of population decline when herd numbers are smaller.⁹⁴ External factors, like the large scale change in climate over 30-40 year cycles, may also affect the quality of habitat and cause weather extremes that further depress herd numbers. 95

Balance of Evidence

The SRRB finds that both Dene náowerá and science share the goal of a holistic and ecological approach to supporting biocultural systems that are diverse, resilient and zedets'é k'áots'erewe (self-regulating). In the shared rededáhk' á (habitat) of rekwé and Dene/Métis in the Sahtú Region, cultural and ecological well-being is dependent upon respect for the autonomy of zekwé and strengthening the knowledge and skills inherent in harvesting relationships with 2ekwé. In a changing social-ecological context, zekwé may decide to change in numbers, zededáhk'é

⁹¹ HT March 1 (242:1), PR 5.01.

⁹² G.J.M. Rickbeil, N.C. Coops and J. Adamczewski. 2015. The grazing impacts of four barren ground caribou herds (Rangifer tarandus groenlandicus) on their summer ranges: an application of archived remotely sensed vegetation productivity data. *Remote Sensing of Environment* 164: 314-323.

93 S. J. Kutz, E. P. Hoberg, J. Nagy, L. Polley and B. Elkin. 2004. "Emerging" parasitic infections in arctic

ungulates. Integrative and Comparative Biology 44:109-118.

⁹⁴M. Festa-Bianchet, J.C. Ray, S. Boutin, S. Cote and A. Gunn. 2011. Conservation of caribou (*Rangifer tarandus*) in Canada: an uncertain future. Canadian Journal of Zoology 89: 419-434.

⁹⁵ A. Gunn. 2003. Voles, lemmings and caribou – population cycles revisited? *Rangifer*. Special Issue No 14: 105-

(habitat), and behaviour in order to survive. Sahtú communities may need to adapt their subsistence practices in order to maintain their relationships with 2ekwé, as they have done over countless generations.

Both Dene náowerá and science provided evidence that the social-ecological system in the Sahtú is gogha horíla (at risk), greatly affected by declining 2ekwé populations, but it is still relatively edets'é k'áots'erewe (self-regulating). The SRRB notes that this stability contrasts with the highly managed systems that prevail in much of Canada's southerly areas, where the number of species at risk is rapidly growing 96 notwithstanding legislated recovery measures, and where the future of 2ekwé relatives, boreal woodland caribou⁹⁷ and mountain caribou⁹⁸, are increasingly precarious.

These results and the evidence in this Hearing further reinforce the SRRB's commitment to engaging with Dene náowerá knowledge along with science in zekwé management, including recognizing principles of 2ekwé 2edets'é k'áots'erewe (caribou self-regulation). The SRRB accepts the Dene naowers and scientific evidence that decisions imposed from outside the communities to control 2ekwé harvesting is a measure of last resort that should be used only when zekwé and indigenous people are no longer able to be zedets'é k'áokerewe (selfregulating). This breakdown of social-ecological systems has not yet happened in the Sahtú Region, but could be severely exacerbated by a management approach that does not respect 2ekwé self-regulation. For this reason, the SRRB supports alternative community conservation approaches for "taking care of" ?ekwé.

Research Priority

Hearing Decision 6

The ?ehdzo Got'ıne Gots'é Nákedı (Sahtú Renewable Resources Board) will work with tịch'ádíı (wildlife) management partners to prioritize the research required to address questions about relationships between changing zededáhk' á gozekwé (caribou habitat), tych' ádí1 interactions and Bluenose East 2ekwé caribou náts'ezé (caribou harvesting) practices.

⁹⁶ Federal, Provincial and Territorial Governments of Canada. 2010. Canadian biodiversity: ecosystem status and trends 2010. Canadian Councils of Resource Ministers. Ottawa, ON. vi + 142 p.

⁹⁷ COSEWIC. 2014. COSEWIC assessment and status report on the Caribou Rangifer tarandus, Newfoundland population, Atlantic -Gaspésie population and Boreal population, in Canada. Committee on the Status of Endangered Wildlife in Canada.

⁹⁸ Ibid.

Policy Priorities

Hearing Decision 7

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) accepts the principle of ?ekwé ?edets'é k'áokerewe (caribou self-regulation), as reflected in community conservation plans, as the best foundation for Bluenose East ?ekwé conservation at this time.

Hearing Decision 8

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) recommends that curriculum development in the Sahtú Region related to be based on concepts of asíı godí hé Dene ts'ılı hé (biocultural diversity) and ?edets'ę k'áots'erewe (self-regulation) in order to instill new generations with understanding of the basis for hegerıchá (respect), and to forge the way for new leaders in conservation.

Hearing Theme 4 – Dene hé Métis hé ?edets'é K'áokerewe (Community Self-Regulation)

The SDMCLCA establishes local Renewable Resources Council (?ehdzo Got'ınę or RRC) and invests them with a number of powers with respect to local harvesting. ⁹⁹ ?ehdzo Got'ınę have the authority "to manage, in a manner consistent with legislation and the policies of the Board, the local exercise of participants' harvesting rights including the methods, seasons and location of harvest."¹⁰⁰

News of significant declines in 2ekwé populations has been a catalyst for vigorous discussions in the Sahtú Region about evidence-based approaches to conservation since the Bluenose West (BNW) ?ekwé Hearing nearly a decade ago. In 2014, Bluenose East (BNE) 2ekwé became a focal point, and the question of local harvesting governance was again posed. Participants at the Sahtú Leadership Caribou Meeting, held in Colville Lake on April 22-23, 2015, resolved unanimously "that the Sahtú region continue the traditional laws of relationship with caribou through a Sahtú-developed caribou plan including a process of self-regulation, driven by community-based monitoring and decisions." ¹⁰¹

Déline's plan took up this resolution, pointing out that the SDMCLCA "allows for a collaborative management system that can create a space for Dene ts'ili (governance) and a role for the RRCs

⁹⁹ SDMCLCA 13.4.6, 13.5.5, 13.8.20, 13.8.40, and 13.9.

¹⁰⁰ SDMCLCA 13.9.4(b).

¹⁰¹ SSI and SRRB, supra, footnote 62.

that can work towards maintaining traditional relationships with 2ekwé and other communities." Déline proposes that the 2edets'é k'áokerewe (self-regulation) approach should be used to address BNE conservation concerns. The Déline plan suggests that the Total Allowable Harvest (TAH) approach, also outlined in detail in the SDMCLCA, should be considered as a last resort, "if our actions are not as successful as we would hope." 103

In its final submissions, ENR recognized "the leadership shown by the community of Déline in developing a community-based caribou conservation plan for the Bluenose-East herd." ¹⁰⁴

Through the Hearing process, several other Sahtú communities have submitted that they wish to adopt a community redets'é k'áokerewe approach. Colville's written submission stated that "the Colville RRC is actively working with SRRB and ENR to develop a caribou plan for the BNW which will include the BNE which on rare occasion pass through the Arake Tue area." The Fort Good Hope RRC workshop resolved that "more control [be] given to communities to control and regulate their own harvesting." The Tulít'a Pehdzo Got'ne (RRC) submitted that "we look forward to developing our own management plan." The Port Good Hope RRC workshop resolved that "more control [be] given to communities to control and regulate their own harvesting."

ENR's witness Bruno Croft noted that the Dél₁ne approach is "outside the box ... it's very progressive. We've learned from it. And we see the results this winter. And clearly we've learned, as you've taught us how you can do things at a community level." ¹⁰⁸

At least one community in BNE range outside the Sahtú Region has recently developed a community zedets'é k'áokerewe plan. In May 2016, the Kugluktuk Hunters and Trappers Organisation (KHTO) delivered a submission to the Nunavut Wildlife Management Board BNE Zekwé Hearing. The Kugluktuk HTO proposed key features of community self-regulation plan called an Integrated Community Caribou Management Plan (ICCMP), prepared in consultation with the Kitikmeot Inuit Association. The KHTO stated their belief that a TAH should be a last resort if other measures do not work. Specifically, "the KHTO believes that the tools in the ICCMP will be a better alternative to the TAH in part because monitoring and enforcement that is local is more respected and effective than enforcement by government." 109

The SRRB is tasked in this Hearing with assessing the regional and community approaches in relationship to the conservation approaches outlined in the SDMCLCA, along with evidence

¹⁰² DEWG, supra, footnote 3, 8.

¹⁰³ Ibid.

¹⁰⁴ ENR. Final Written Submission to the SRRB's 2016 Bluenose-East Caribou Herd Proceeding. 8, PR 2.12.

¹⁰⁵ Colville, supra, footnote 26.

¹⁰⁶ Fort Good Hope Renewable Resources Council. 2016 (May 13). Suggestions by delegates at [?ekwé Hearing] workshop. 1, PR 4.05.

¹⁰⁷ Tulít'a Renewable Resources Council. 2016 (May 3). Final Submission for the Public Hearing on Management of Bluenose East 2ekwé (caribou). 2, PR 4.08.

¹⁰⁸ HT March 1 (97:2-6), PR 5.01.

¹⁰⁹ KHTO, supra, footnote 59, PR 3.11.

offered by Dene náowerá and social science research (including the fields of anthropology, history, and environmental governance) on the ability of redets'é k'áokerewe plans to achieve conservation goals. A community-based redets'é k'áokerewe approach is uncommon in the formal co-management context in the NWT (although it may have been the customary community practice and is an aspect of emerging self-government arrangements). It requires thorough review – hence the discussion related to this theme is more extensive than with other themes.

Dene Náowerá Evidence

There is overlap between Dene náowerá and social science evidence based on research with indigenous peoples, or research on documentation of indigenous history, knowledge and practices related to redets'é k'áots'erewe. For the purpose of this Report, the Dene náowerá evidence reviewed is drawn from the Hearing transcripts, the Sahtú communities' submissions and other relevant documentation directly from Dene and Métis communities. The science evidence is drawn from the submissions, oral evidence and scientific literature submitted by ENR, and relevant secondary sources.

History

The Déline plan identifies four phases in the history of Déline Got'ine (the Dene people of Déline) starting with 1) Dene ts'ili (the old time Dene way of life), moving through 2) a period of government efforts to conserve tich'ádíı (wildlife) through imposition of harvesting regulations, to 3) the post-land claim era of co-management, and finally 4) to the present and future era of self-governance. 110

The Délįnę plan points to a number of "Problems We Face" in zekwę́ conservation which indicate these four phases tend to overlap. The first, Dene ts'įlį, has carried through to inform the present/future time of self-governance (phase 4). However, strong resonances of the pre-land claim experience of top-down management practices (phase 2), persistent in Dene experiences of contemporary co-management (phase 3), threaten to undermine aspirations of self-governance. The plan refers to "memories of the colonial days" brought by the tag system proposed by ENR, "top-down decisions" by ENR, and "lack of trust and confidence to work with decision-makers." ¹¹¹

These experiences were echoed in community testimony at the Hearing. Tulít'a elder Joe Bernarde reminded Hearing witnesses of warnings issued long ago to be prepared for this: "The prophets had said that they're going to bother you and bother you, and they're going to try to beat you." Déline elder Morris Neyelle said, "I'm going to be honest with you, because my trust

¹¹⁰ DEWG, supra, footnote 3, 15.

¹¹¹ DEWG, ibid, 17-18.

¹¹² HT, March 1 (229:16-19), PR 5.01.

with the government is nil because of what has happened to us."¹¹³ SSI President Ethel Blondin-Andrew offered insight into the way that historical experiences can be carried into the present. Addressing ENR witnesses directly, she said: "Maybe I'm just a wounded old dog who's been through too many battles to just let this go. I really believe that our people have to come together and find the solution. We have to be trusted. You don't trust us. We don't trust you. We've got a problem"¹¹⁴

Rights

The lack of trust expressed by the Dene witnesses in the Hearing is grounded in a strong fear that Aboriginal rights, hard-won through the SDMCLCA, might be infringed upon. Ethel Blondin-Andrew warned, "Be jealous, and guard your authority carefully. I'll tell you, once you let it go, you'll never get it back. Once you let government control your life and take your authority, they'll never give it back to you. You are on a slippery slope. You have to be careful." Fort Good Hope elder Frank T'seleie asked a related question of his own people: "Why do we always let others define the world for us?" Echoing concerns expressed by Tulit'a Chief Frank Andrew, he continued, "We have moose, we have two species of caribou, we have about three species of bear, we have mountain sheep, not to mention the predators, how much there is. And we have inherent rights to all of that ... That's being chipped away, chipped away slowly." 116

Responsibility

At the Hearing, Colville witness David Codzi stated that "the native people were conservators of wildlife to begin with," and notwithstanding government efforts to assert control, "I don't think we've ever stopped being the conservators of wildlife at all." The written Colville submission pointed out that zekwé náts'ezé (caribou harvesting) is not just a right, but a governance responsibility: "Dela Got'ıne have a constitutionally-protected right to hunt caribou, but hunting is integral to the cultural and survival of Dela Got'ıne. It is more than a right – it is a sacred responsibility that must be fulfilled for the Dela Got'ıne and the caribou to maintain their relationship." 118

The concept of responsibility, intimately linked with the concept of hegerichá (respect) discussed earlier in relation to Theme 3 (?ekwé ?edets'é K'áots'erewe – Caribou Self-Regulation), is a theme in the Déline plan as a corollary to the concepts of governance and rights. Déline elder Alfred Taniton is quoted in the Déline plan regarding responsibility to take action if ?ekwé populations are declining. 119 As Déline witness Morris Neyelle put it during the Hearing, "I

¹¹³ HT, March 1 (208:13-15), PR 5.01.

¹¹⁴ HT, March 1 (259: 3-8), PR 5.01.

¹¹⁵ HT, March 1 (258:22-25, 259:1-2), PR 5.01.

¹¹⁶ HT, March 2 (207:23-25, 208:1-4), PR 5.02.

¹¹⁷ HT, March 2 (235:11-16), PR 5.02.

¹¹⁸ Colville, supra, footnote 26, 2.

¹¹⁹ DEWG, supra, footnote 8, 17.

know sometimes people bring issues like treaty rights. Sure, that's fine. But even though you have treaty rights, do you kill the last caribou that's standing? No. You leave some for tomorrow. That's what we're trying to do." ¹²⁰

David Codzi further expanded upon the concepts of rights and responsibilities: "When we signed the land claims ... we never, ever gave up any rights. What these rights are is the opportunity to make a choice. That's our message, is that we have to be responsible. We have to make sure that we're doing these things ourselves because we can't just rely on somebody else, and then tell them this is a problem, and if they're not doing it right, then bash them and complain about them." 121

Dene Ts', I, (Dene Ways of Being)

The Dene witnesses in the Hearing explained that responsibility, along with hegerichá, are inherent in the concepts of Dene ts'ılı and Denecho kə gok'étá náts'ezé (we have to hunt like our grandparents did) that are at the core of the Déline plan. Thus Dene hé Métis hé redets'é k'áots'erewe (community self-regulation) and Dene ts'ılı alike involve transmitting knowledge of Denecho (grandparents) and continuing their practices. As Déline witness Walter Bayha put it, in presenting the Déline plan, "I encourage every hunter, every harvester, to remind themselves that they have grandfathers and to remind themselves that we must hunt like them." Walter went on to describe the corresponding meaning of Dene ts'ılı: "To be a true Dene you have to have a good relationship with your wildlife and your land and Mother Earth. You have to have some kind of relation with the Creator. And I think throughout your life, those things are important to you. You balance them out. You make those decisions." 123

Discipline

There was extensive discussion of the discipline required to support 2edets'é k'áots'erewe behaviour at the Hearing, and clear agreement among all the community parties. For example, Tulít'a elder Joe Bernarde said, "I agree with the words that are being said here at the table. When we kill things that we need, we don't kill any more than that. And when we kill things, we don't just throw it outside. And how many we're going to eat, how many we're going to make for dry meat, we don't shoot any more than what we need ... We don't play with things like that up here. When we kill, we kill for what we need. We don't throw things around." 124

The SRRB heard evidence from the community parties that the discipline required to maintain good relationships within family and community is linked with the personal discipline required

¹²⁰ HT, March 1 (210: 23-25, 211:1), PR 5.01.

¹²¹ HT, March 3 (94:6-9, 95:5-10), PR 5.03.

¹²² HT, March 2 (15:5-8), PR 5.02.

¹²³ HT, March 2 (29:25 - 30:6), PR 5.03.

¹²⁴ HT, March 1 (225:21-25, 226:1-3, 227:18-20), PR 5.01.

for 2edets'é k'áokerewe. Parents and elders in the 2edets'é k'áokerewe system are key. The SRRB recognizes that concepts of governance within the community is challenging for non-Dene to understand, given that personal autonomy is so strong. According to Bayha, "One of the biggest Dene laws is you can't tell other people what to do. You don't go to somebody and say, 'This is the way you should do things.' That never happened when I lived on the land with my grandfather." 125

Leadership

Bayha also noted the strong community leadership and coordination of collective discussion that was the context for building consensus within the community in support of the Déline plan. Colville Chief Wilbert Kochon shed light on how the Dene system of leadership works to both support personal autonomy and compliance with collective community decisions. He said that the grandfathers "have never said, 'Here, you do it this way.' They never told us that we did it wrong. We learned, and we didn't think so but we learned. That's how we learned." Colville witness David Codzi also reflected on the means by which traditional discipline is learned: "When we're little kids, we're sitting on our parent's laps and we're listening to them talk. They're talking about how we're going to live with animals, how to respect what we take ... we have been trained all our lives to live out there, to live with it, to understand what we have on our land, because it's a responsibility that we all have." The SRRB heard evidence of how the Dene way of achieving community redets'é k'áots'erewe is thus through the learning that takes place in talking and mentorship on the land, rather than through regulations and compulsion.

Youth

This Hearing was enhanced by the participation of the Sahtú Youth Connection (SYC) as a formally recognized Party. The presence of a SYC delegate was much appreciated by all Parties, as indicated by the frequent references throughout the hearing to the importance of youth involvement in 2ekwé conservation. The word youth is one of the top twenty terms in the hearing transcript (Cf. the inclusion of the word in the Word Cloud, Figure 1, page 7), used a total of 169 times.

A number of youth were involved in developing the Déline plan, and the plan includes a message from youth Ted Mackeinzo, who writes:

Taking our youth on the land to hunt, trap, fish and monitor will support the ?ekwé conservation plan because it will teach the youth how we take care of our land, ensuring our

¹²⁵ HT, March 2 (15:21-25), PR 5.02.

¹²⁶ HT March 2 (113:9-13).

¹²⁷ HT, ibid, March 2 (235:20-25, 236:1-7), PR 5.02.

culture and traditions are preserved. That's how we can make sure the caribou will come back. 128

The Dél₁ne plan includes 2e2a (policies) directing community organisations to include youth in the 2ekwé gha máhsı ts'ınıwe (ceremonial harvest) and Dene béré kats'ınıwe (alternative harvest). ¹²⁹ In his presentation of the Dél₁ne plan at the Hearing, Dél₁ne witness Walter Bayha explained:

One of the biggest parts of this plan is our youth. Our youth must know about our plan. Our youth must know about how the grandfathers hunted and what the big issue is today about caribou. Many of them are probably wondering why we're talking so much about it. I think all we want is for children to hunt like their grandfathers. ¹³⁰

Bayha further explained that the education of a young hunter is a crucial part of his development as Dene, and described the traditional ritual that would take place when a young man shot his first animal for food:

In our history, the day that you [first] hunt something, that you kill an animal that you're going to eat, the Dene people celebrate it. Then they made sure you remember, and they do it by tearing your clothes off so that you remember that first day that you hunted. You killed an animal. A human being does not kill animals. You're taught to do that. But when they teach you to do that and you actually do it, they rip your clothes off so that you remember that day forever ... they shared all of their food to make sure all of our grandfathers, our Elders here know that they have hunted an animal. ¹³¹

Déline witness Gina Dolphus confirmed Bayha's description with a story of her son, who had his best shirt torn off him by his grandfather. 132

Youth involvement in community activities is not just important for their education, but also was a guarantee of quality community governance processes, as Bayha put it, "because when you bring children you make good decisions." ¹³³

This being said, SYC witness Jordan Lennie noted that few Déline youth were present at the hearing. Bayha acknowledged this, and welcomed solutions. ¹³⁴

Colville witness David Codzi explained that their community has for many years had a policy of ensuring that youth learn to survive on the land, and learn disciplines of hegerichá (respect):

¹²⁸ DEWG, supra, footnote 3, 18, PR 2.03.

¹²⁹ DEWG, ibid, 27, PR 2.03.

¹³⁰ HT March 2 (44:6-14), PR 5.02.

¹³¹ HT March 2 (44:21-25, 45:1-24), PR 5.02.

¹³² HT March 2 (62:23-25, 63:1-63, PR 5.02.

¹³³ HT March 2 (109:22-23), PR 5.02.

¹³⁴ HT March 2 (213:8-16), PR 5.02.

All our youth get to go out on the land. They all hunt for themselves. They all hunt for their their families. but they're taught at a young age to live out there. I have two nephews that are at the age of ten they were already going hunting. Nowadays, they're fifteen and sixteen. They go out there. They talk about what they hunted and how they hunted. I'm proud to say that I could hear that they have respect for what they're doing because, as hunters, you want to respect. 135

In his closing remarks, SYC witness Jordan expressed frustrations about the experience of the Hearing that are indicative of ongoing challenges of supporting meaningful participation of youth in 2ekwé conservation decision-making:

I feel I was discriminated against because of my age. When I asked questions to parties, I expected answers that would help me and the rest of the people in the room understand their plans a bit better. Instead, I was given complicated answers that, after a quick analysis, weren't answers at all. If you want youth to come to these meetings and voice their concerns, quit coddling them and start treating them as more than children. ¹³⁶

Funding

The community parties also presented evidence of the great challenges in renewing and maintaining the 2edets'é k'áokerewe system in a cross-cultural and cross-regional context. Dél_ine and Colville alike offered evidence that the institutional framework established to support this system in the SDMCLCA has not been properly implemented due to a lack of adequate funding and capacity support. Colville made the case that underfunding is a basis for conflict, indicating that adequate funding support would allow ?ehdzo Got'ine (RRCs) to fully exercise their powers in undertaking community conservation initiatives and coordinating with other parties in the integrated management system. Colville recommends "ongoing effort to increase funding for RRCs to participate in the work required including establishing monitoring plans in place at the local level, to ensure more collaboration rather than confrontation." 137 The SRRB heard evidence from the community parties that adequate funding can potentially lead to greater efficiencies in wildlife management and cost savings in research, monitoring and management processes.

Scientific Evidence

The bulk of the evidence presented at the Hearing, regarding the validity and merits of indigenous models of self-regulation to meet wildlife conservation goals, came from the Sahtú community parties and not from ENR. This makes sense, as it should be the indigenous parties in the Hearing who provide the core evidence about this option. The SRRB assessed the leading

¹³⁵ HT March 2 (260:24-25, 261:1-12), PR 5.02.

¹³⁶ HT March 3 (218:18-25, 219:1-2), PR 5.03.

¹³⁷ Colville, supra, footnote 26, 16.

science analysis of self-regulation models as part of the SRRB's consideration of the Dél₁ne plan and Sahtú community evidence.

Knowledge and Authority

The community redets'é k'áokerewe (self-regulation) approach in the Déline plan is supported by social science analysis of Sahtú Dene systems of knowledge and authority.

The Dél₁ne plan prefaced a discussion of zedets'é k'áokerewe with a quote from the work of anthropologist Scott Rushforth, who completed his doctoral research in Dél₁ne in the 1970s: "Every person is his or her own boss." ¹³⁸

Rushforth sets this conception of autonomy in the context of the interdependence of family and community members, and recognition of the authority of experienced zehdzo got'ınę (harvesters), as a foundation of collective and individual survival of hunter-gatherers in a harsh climate. He notes that Dene highly praise the Dene edaríyə (capable person) "who obtains his or her knowledge, power, and hence abilities through experience." ¹³⁹ The opposite is the case for people who act contrary to Dene beliefs or principles; these people are subject to negative sanctions and have no authority. Rushforth observes that Délınę Got'ınę (referred to in his work by their traditional name of Sahtúot'ınę or Bearlakers) retain many of the preferences and practices of their traditional hunter-gatherer mode of production, "despite [their] intersection with capitalism." ¹⁴⁰

More recent research with Déline demonstrates that traditional beliefs and practices are persistent, notwithstanding the accelerated modernization of the community since the 1970s. The ongoing use of Dene terms and concepts documented by Rushforth in the 1970s is an indicator of cultural continuity. Research examining the larger Sahtú economy highlights the strengths in the contemporary Dene "mixed economy," which accommodates both an expanding wage economy and continued traditional practices. 142

¹³⁸ Rushforth notes, "As Bearlakers often say, 'Dene 'adiyóné 'edeegha k'áowe,'" or spelled according to contemporary spelling standards, "Dene areyóné edigha k'áowe." S. Rushforth. 1992. The legitimation of beliefs in a hunter-gathered society: Bearlake Athapaskan knowledge and authority. *American Ethnologist* 19(3): 488-to what page?.

¹³⁹ "Dene 'ehdadíyee" – or in contemporary spelling, "Dene edaríyə." Rushforth, supra, footnote 138. ¹⁴⁰ Rushforth, supra, footnote 138, 489.

¹⁴¹ See for example: Modeste, supra, footnote 56; Sarah M. Gordon. 2014. *Cultural Vitality as Social Strength in Déline, Northwest Territories, Canada*, doctoral dissertation, Indiana University. See also D. Simmons, W. Bayha, I. Fink, S. Gordon, K. Rice, and D. Taneton. 2015. "Gúlú Agot' 1 T'á Kə Gotsúha Gha – Learning About Changes: Rethinking Indigenous Social Economy in Déline, NWT," in *Northern Communities Working Together: The Social Economy of Canada's North*, U Toronto P, 253-274.

¹⁴² B. Harnum, J. Hanlon, T. Lim, J. Modeste, D. Simmons and A. Spring. 2014. *Best of Both Worlds: Sahtú Gonéné T'áadets'enţto – Depending on the Land in the Sahtú Region*, SRRB. See also the description of the mixed economy by F. Abele. 2009. The State and the Northern Social Economy: Research Prospects. *Northern Review* 30:37–56.

The Déline plan also draws upon the work of anthropologist Allice Legat, whose long term research with Tłicho elders sheds further light on the nature of Dene authority. In particular, Dr. Legat dwells upon the concept that the limitations of Dene authority are defined by the limitations of their knowledge and experience. Rather than learning through the exercise of disciplinary power. Dene learn through a combination of stories and experiences on the land. This experiential learning remains integral to Dene governance processes.

Indigenous-Led Planning

The Délįnę plan provides a contemporary framework for zedets'ę k'áokerewe. The Délįnę submission to the SRRB explains that the planning process which produced the Délįnę plan was based on a "Healthy Country Planning" (HCP) approach that was adapted from the *Open Standards for the Practice of Conservation* by Aboriginal communities in Australia. The first experiment in developing the HCP approach to fit with Aboriginal cultures took place in 2008, and since that time more than 80 Australian communities have adopted the approach. The SRRB is aware that numerous community-driven plans are now being implemented, and a number of academic publications are emerging that reflect upon this phenomenon. 144

The SRRB is also aware, through its specialized role as a northern co-management board, that a number of indigenous communities in Canada are undertaking significant initiatives in community-driven conservation. Examples include the Haida Watchmen program, the Innu Boreal Guardian program, and the Ungava Peninsula Caribou Aboriginal Round Table (UPCART). The annual May Gatherings of Northern Tutchone people are an example closer to home in the Yukon Territory, where a nation has renewed a tradition of gathering in spring to discuss experiences on the land and plan conservation measures for the coming year. ¹⁴⁵

In 2015, the Boreal Leadership Council sponsored a review of caribou action planning involving indigenous peoples in boreal regions of Canada, including indigenous-led initiatives documented through interviews, and document review of non-indigenous-led plans. Of the nine examples of indigenous-led action planning reviewed, none were selected from the NWT, although representatives of four nations in the Yukon Territory were interviewed. 146

¹⁴³ A. Legat. 2012. *Walking the Land, Feeding the Fire: Knowledge and Stewardship among the Tl*cho Dene. UAP. ¹⁴⁴ Eg. H. Moorcroft, E. Ignjic, S. Cowell, J. Goonack, S. Mangolomara, J. Oobagooma, R. Karadada, D. Williams and N. Waina. 2012. Conservation planning in a crosscultural context: The Wunambal Gaambera Healthy Country Project in the Kimberley, Western Australia. *Ecological Management and Restoration* 13(1): 16-25.

¹⁴⁵ W. Bayha with D. Simmons. 2012. Wildlife Management Decision-Making from the Ground Up: Notes on the Northern Tutchone May Gathering May 23-25, 2012, Pelly Crossing, YT. SRRB.

¹⁴⁶ The researchers did review indigenous involvement in the Government of the NWT initiatives in *Barren-Ground Caribou Management Strategy* (2006-2010 and 2011-2015) and the *Action Plan for Boreal Woodland Caribou Conservation in the Northwest Territories* (2010-2015) – chosen because of their focus on collaboration with comanagement boards – as well as Centre for Indigenous Environmental Resources (CIER). 2015. *Caribou Recovery in Canada: A 2015 Review of Indigenous-led Action Plans*, Boreal Leadership Council, PR 3.10.

One telling distinction found between the two types of processes was highlighted in the common response to the interview question, "Why did the community take initiative?" The authors point out that five of the seven representatives of indigenous-led planning caribou processes responded that traditional use was the reason for taking action. In contrast, the documents related to non-indigenous-led plans most often mentioned caribou status as the reason for action; none mentioned traditional use. 147

The lessons highlighted in the Boreal Leadership Council's report are directly relevant to conditions for successful redets'é k'áokerewe articulated by the Sahtú Dene over the course of the BNE Hearing:

- In indigenous-led initiatives, harvesters and elders noticed declines through a close connection with the land that attuned them to early warnings of changes in the environment.
- The committed inclusion of traditional knowledge in caribou initiatives is key to building a strong relationship and ensuring the best management possible.
- Strategies that truly consider all perspectives to have equal influence have the best chance at success.
- Indigenous-led initiatives were often dynamic in that plans were often subject to changes over time depending on the availability of information, the types of collaboration, and the capacity built as the initiative progressed.
- Interview witnesses noted that when caribou harvesting has been limited or eliminated in the interest of protecting the herd, the community's ability to perpetuate components of a traditional lifestyle is affected.
- For continued improvement in indigenous inclusion and indigenous-led caribou management initiatives, more action is needed in terms of follow-up with outcomes of action plans.¹⁴⁸

Funding

As discussed elsewhere in this Report, a key concern raised repeatedly by the Sahtú communities was the funding required to ensure that RRCs have the capacity to deal with local wildlife harvesting responsibilities already assigned to them under the SDMCLCA.

The scientific literature rarely directly addresses the issue of funding as it affects indigenous redets'é k'áots'erewe (self-regulation). However, the area of research funding as a component of indigenous involvement in governance does receive some attention. The SRRB is aware, for instance, of a study regarding experiences in the adjacent land claim area in Nunavut. Based on the experience of the Nanisiniq History Project in Arviat, Nunavut, Dutheil et al., shed light on

¹⁴⁷ CIER, supra, footnote 146, 14.

¹⁴⁸ Ibid, 40.

complex and evolving cross-cultural cultural and class contexts by analyzing tensions and misunderstandings in research relationships related to research funding. 149

In 1996 Doug Urquhart, former Executive Director of the Porcupine Caribou Management Board, took on the question of funding as a consideration when setting priorities in ?ekwé conservation research – his focus at the time was on the new institutions of co-management and the requirements for contributing meaningful and relevant evidence for decisions. Urquhart's analysis reflects the challenge posed by Sahtú communities at the BNE Hearing:

To successfully refocus wildlife research so that it is compatible with co-management approaches to problem solving is more of a challenge than might first appear. Many of the classic approaches must be sacrificed in favour of more down-to-earth methods that are affordable, understandable, useful and acceptable to northern communities. Whereas such methods may be judged as "unscientific" by the academic, this is of far less importance to co-management groups than having something they can understand and use. ¹⁵⁰

Urquhart also noted that the new tįch'ádíi co-management regimes would inevitably lead to new funding pressures for research. However, he concluded that "it would be silly to imagine that standard research resources could be expanded to meet escalating demands for information ... and thus it is imperative that wildlife research be completely restructured to accommodate the new ways of managing wildlife." ¹⁵¹

Revisiting The Concept of "Tragedy of the Commons"

In examining the available scientific evidence on indigenous self-regulation, the SRRB is aware that underlying assumptions of t_ich'ádíı as "property" or a "resource" to be managed is being challenged by indigenous groups and scholars alike.

In his book *Hunters at the Margin*, historian John Sandlos makes the case that during much of the 20th century, wildlife conservationists considered indigenous peoples of the North to be forces of destruction that must be controlled. Wildlife biologists were called upon to provide the basis for rational development of game laws that would be the salvation of valued species as a national resource. Sandlos links development of wildlife conservation laws with the expansion of

¹⁴⁹ A. Dutheil, F. Tester and J. Konek. 2015. Unequal exchange: western economic logic and Inuit/Qablunaat research relationships. *Polar Record* 51(257):140-150.

 ¹⁵⁰ D. Urquhart. 1996. Caribou Co-Management Needs From Research: Simple questions - Tricky answers. *Rangifer* Special Issue, 6th North American Caribou Workshop, 9.
 ¹⁵¹ Ibid.

colonial presence in the North, and a systematic effort to undermine the authority of "the people" who had lived and hunted in the region for centuries."152

In 1968, advocates of strong wildlife regulations were given added justification through publication of a hugely influential article called "The Tragedy of the Commons," 153 which draws on a theory first developed in 1833 by a British economist. 154 The theory holds that if left to their own devices, people will exploit a common resource until it completely crashes: "freedom in a commons brings ruin to all." This interpretation supports state intervention as a necessary means of environmental protection.

Recently there have been a number of criticisms of this concept, and theories and counterexamples have been introduced to show the conditions in which people sharing land may conserve it for future generations. This critique has been led the Nobel-prize winning work of economist Elinor Ostrom, whose research demonstrated the effectiveness of indigenous redets'é k'áokerewe and refuted the notion that common resources would be destroyed by overuse in indigenous communities. 156

In a case study of Aboriginal fisheries, Ian Keay and Cherie Metcalf have examined the intersection of conservation logic and Aboriginal rights guaranteeing access to traditional resources as they have been addressed in Canadian courts. The courts have expressed concern about dramatic environmental impacts when Aboriginal access is unfettered, based upon assumptions that Aboriginal behaviour would be subject to a tragedy of the commons logic. Instead, Keay and Metcalf point to evidence that such behaviour only tends to appear "when the Aboriginal community is unwilling or unable to self-regulate." ¹⁵⁷

The SRRB accepts that there is a need to think critically about the underlying assumptions regarding wildlife management – such as the "tragedy of the commons" - which may not be valid in a northern indigenous context.

¹⁵² J. Sandlos, 2007. *Hunters at the Margin: Native People and Wildlife Conservation in the Northwest Territories*. UBC Press.

¹⁵³ G. Hardin. 1968. Science 162(3859): 1243-1248. http://science.sciencemag.org/content/162/3859/1243.full.

¹⁵⁴ W. F. Lloyd published a pamphlet in 1833 describing an example in which cattle herders sharing a common grazing area would put too many cattle on the land, leading to overgrazing of the pasture. ¹⁵⁵ Hardin, supra, footnote 153, 1244.

¹⁵⁶ E. Ostrom. (1990). Governing the Commons: The Evolution of Institutions for Collective Action. Cambridge, UK: Cambridge UP.

¹⁵⁷ I. Keay and C. Metcalf. Aboriginal Rights, Customary Law and the Economics of Renewable Resource Exploitation. Canadian Public Policy 30(1):16.

Balance of Evidence

Sandlos's account of the history of wildlife management in the north and anthropological evidence regarding Dene governance bear remarkable similarities to the evidence and the testimony presented in the Hearing supporting community redets'é k'áokerewe (self regulation).

Moreover, ENR's BNE 2ekwé management plan includes a complementary commitment to "work with Sahtú organizations and communities on caribou harvest management that is culturally appropriate and consistent with overall management objectives for the herd." ¹⁵⁸

The primary evidence supporting imposed conservation measures is the fact that such measures have historically been used by wildlife management authorities in other regions of the NWT, and reflect a standard approach to conservation elsewhere in Canada. However, the SRRB has not been able to find compelling evidence about the effectiveness of such measures in achieving conservation goals in indigenous traditional territory. On the contrary, Dene náowerá and social science evidence demonstrate that imposed regulations can have a negative impact on the knowledge and authority that underpin traditional Dene conservationist practices. It is the SRRB's opinion that the "tragedy of the commons" is a more likely outcome if Dene modes of knowledge transmission and stewardship are undermined.

The SRRB recognizes that community conservation planning and redets' k'áokerewe are key instruments for rehdzo Got', in exercise their powers. The SRRB also recognizes that redets' k'áokerewe is a condition for maintaining Dene ts', il (Dene ways of being) and así, godí (biodiversity). Diverse knowledge, language and practices among families and communities mean that each community must find its own pathway to conservation. Managing accordingly does not negate the need for coordination and mutual accountability among communities and regions located in BNE rekwé range, which is why funding programs for research and conservation planning must accommodate community-driven processes.

The SRRB recognizes the strong weight of Dene náowerá evidence that youth involvement is core to the success of community 2ekwé conservation planning initiatives. However, the SYC witness presented compelling evidence that involvement remains largely unrealized in practice. The Board congratulates the Délįnę ?ehdzo Got'įnę its efforts in this regard, including the success of its youth internship program, which contributed to the Délįnę planning process. The Board is aware that the Délįnę ?ehdzo Got'įnę is initiating a research program on youth involvement in environmental governance in partnership with University of Alberta, and various communities have been taking initiative to support youth programs on the land. Innovative programs are required to support meaningful youth involvement in 2ekwé conservation.

¹⁵⁸ ENR, supra, footnote 2, 13.

The Components of Community Conservation Plans

In order for 2edets'é k'áots'erewe to function in a regional co-management context, community conservation plans must be developed and revised in a timely manner as a basis for timely conservation actions. ?ehdzo Got'įnę must be provided with the funding required to develop plans. The SRRB has identified a list of components that must be included for plans to be deemed ready for review and approval by the SRRB (see Figure 5).

FIGURE 5: COMMUNITY CONSERVATION PLAN REQUIREMENTS

Community Conservation Plan Requirements

In order to be deemed complete and ready for review by the SRRB, community conservation plans must include, but not be limited to, the following components:

- 1. Identification of key issues and knowledge gaps in bekwé conservation with respect to:
 - a. Education
 - b. Habitat
 - c. Land Use Activities
 - d. Náts'ezé (harvesting), including promotion of Dene béré kats'įnįwe (alternative harvest)
- 2. Dene concepts and terminology related to conservation issues, programs, and actions
- 3. Research and conservation programs, actions and timelines for addressing priority issues and knowledge gaps
- 4. Approaches for pedets'é k'áots'erewe and regional/cross-regional accountability in plan implementation, including:
 - a. Náts'ezé zones
 - b. Monitoring
 - c. Measures for supporting compliance
 - d. Youth programming
 - e. Progress evaluation
 - f. A harvest plan based on pedets'é k'áots'erewe
- 5. Consideration of the appropriate seasons of harvest and harvest locations and zones
- 6. Community sharing protocols and godi kehtsį (agreements) with other users within and beyond the Sahtú, including a protocol for implementation reporting
- 7. Community coordination in developing plans

Where a community conservation plan has not yet been established, it must be completed within 120 days of a formal request from the SRRB. Where a revision to an existing plan is formally requested based on new evidence about herd status, it must be completed within 90 days. Plans and revisions will be approved by the SRRB, within 60 days of receipt. If plans or revisions are not completed according to these timelines, interim measures will be put in place, in consultation with affected communities, within 60 days of the original deadline; this may include implementation and enforcement of mechanisms identified in the SDMCLCA such as a Total Allowable Harvest.

Research Priority

Hearing Decision 9

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will prioritize research that both involves youth and explores youth learning and environmental leadership as a part of robust community conservation initiatives.

Policy Priorities

Hearing Decision 10

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) finds that an approach of community ?edets'é k'áots'erewe (self-regulation) is a culturally appropriate and effective mechanism for addressing Bluenose East ?ekwé conservation as required under the SDMCLCA.

Hearing Decision 11

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) requests ?ehdzo Got'ınę (Sahtú Renewable Resources Councils) to develop and implement Bluenose East ?ekwę́ conservation plans following the timelines and including the content listed in Figure 5, page 44 of this Report.

Hearing Decision 12

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) requests that the Federal and Territorial governments and Sahtú Secretariat Incorporated (SSI), and any new self-government institutions, address the resources needed for ?ehdzo Got'ınę (Sahtú Renewable Resources Councils) to develop community ?ekwé conservation plans and fulfill their other current responsibilities under the SDMCLA by:

- 1. Providing immediate additional funding to ?ehdzo Got'ıne to fulfill those responsibilities over the next two years; and
- 2. Providing additional funding on an annual long term basis after an assessment, done by the SRRB, ?ehdzo Got'ıne and Sahtú Secretariat Inc. by September 2017, to determine long term ?ehdzo Got'ıne capacity needs.

Hearing Decision 13

The ?ehdzo Got'ınę Gots'ę́ Nákedı (Sahtú Renewable Resources Board) finds that there is strong consensus in the Sahtú Region that youth involvement is critical for the success of community 2ekwę́ conservation plans. The SRRB will prioritize support for regional and local youth environmental leadership initiatives that can support community visions for youth education and participation.

Hearing Theme 5 – ?ełehé peghálats'eda (Collaborative Management)

The Sahtú Dene and Métis Comprehensive Land Claim Agreement (SDMCLCA) sets up an integrated system of collaborative tլch'ádíı (wildlife) management that fits within larger collaborative processes in the NWT, including the ACCWM, Wildlife Act Working Group, and Species At Risk Conference of Management Authorities. Pehdzo Got'ıne, the SRRB and ENR must relehé reghálats'eda (work together) and share information in research, monitoring and management within the Sahtú Region, and in turn the SRRB and ENR must collaborate with wildlife management authorities from other regions. This makes a lot of sense for a highly valued species like rekwé that travels across boundaries. However, the issue of rekwé conservation has put collaborative management system to the test. The SRRB has had to weigh evidence about whether and how community redets'é k'áokerewe (self-regulation) can coexist with relehé reghálats'eda at regional and cross-regional scales.

Dene Náowerá Evidence

The SRRB heard evidence in the Hearing of how persistent resonances of the colonial experience and attendant lack of trust of outside authority described in Theme 4 – Dene hé Métis hé ædets'é k'áots'erewe (community self-regulation) – remain powerful factors undermining the ælehé æghálats'eda system. As noted in Theme 4, Colville has stated that adequate support for æledzo Got'iné to exercise their mandate under the SDMCLCA will "ensure more collaboration rather than confrontation." At the Hearing, Colville witness Joseph Kochon asserted that with respect to co-management, Colville is "committed to fulfilling the purpose of the land claims and to achieving meaningful co-management through the implementation empowerment of the SRRB as the primary body for decision making and the RRCs as the primary bodies for local harvesting management across the region." ¹⁶⁰

¹⁵⁹ Colville, supra, footnote 26, 16.

¹⁶⁰ HT (240:6-12), March 2, PR 5.02.

The SRRB heard considerable evidence that Dene and Métis in the Sahtú Region consider zelehé zeghálats'eda to be a priority as a basis for effective zekwé conservation. All Parties at the Hearing provided substantial input on the need for collaborative approaches to addressing caribou issues.

Directly addressing the SRRB and others around the room, Délįnę elder Leon Modeste provided fulsome testimony about the meaning of zełehé zeghálats'eda for Dene peoples, taking as a starting point the shared interests of all present as human beings, as grandparents, parents, and youth, and reminded of dire prophesies about what will happen if people do not embrace principles and practices of zełehé zeghálats'eda – which includes dialogue and collaboration with tịch'ádíı (wildlife) and asíį godí (all living things). He also referred to the story of the meeting between ?ekwé and Díga (Wolf) – included in the Délįnę plan – which is an important reference point in considering the nature of zełehé zeghálats'eda in the Sahtú Region. We've reproduced his statement in abridged form here in order to provide insight into the Dene understanding of collaborative stewardship processes:

Our Children will be Thankful

Leon Modeste 161

We are all human. If we are going to be standing together, we're going to need to be strong. We are not just talking for today or tomorrow. We're talking for future generations.

All my elders help each other and work together. When Elders go around on this land, they were very happy together and grateful. That is how they work together.

Today you are talking about wildlife. We are asking you to come to us and work with us. When we work together, the solution also comes from us as Aboriginal people. We know what is ours. You are the ones who are working with us, and you sit here with us and help us with certain things. When things are difficult that we don't understand, then you help us. It will be there forever for us. If you don't help us, it'll be going back and forth like this. It will be like waves. It will fixed. It'll go up and down.

But when you work together, you should not be telling us, "Do this, do that." So if you keep going back and forth, and then telling us to go do this and do that, and it will become difficult for us. We'll be thinking about it constantly. It won't be really good for our future generations. It is not only for our children, it is also including all your children.

¹⁶¹ Abridged and corrected statement from interpreted and transcribed speech, HT (213-225), March 1, PR 5.01.

The Prophet Ayha has prophesied that it will become very, very difficult. It will become dark. We will run out of food.

For that reason, we should work together. If we work together, it is said that we will come to live together very well. When we listen to each other, things will be good. If we don't listen to each other, both sides will suffer. When you listen to our elders and let us work together, our children will be thankful.

And if you come up with a solution, it will be there for a really long time. You young people that are sitting here, you're leaving out what the Elders are trying to say. You are to listen to that information and hold onto it and try to figure out what the Elder is trying to say.

When you're talking about the caribou and wolf, they both had a meeting together. Wolf said the caribou should not be here. And the caribou said, "No. All the people eat our food." And he also talked to Díga and said, "You also eat my food."

Until this day, this message is still the same, and it's going to be there forever. For this message to be here forever, we have to listen and work together.

Us Dene people, as Aboriginal people, let's come together. Let us not fall to the bottom as Aboriginal people. Let us be on the same playing field and come out with how it's going to go. It's up to us.

You probably come from various different places, like Ottawa. That land is yours. That's your home. As Aboriginal people, we wouldn't go to your land, and tell you to do this, and build this way, and look after your wildlife this way. We would never do that.

As Aboriginal people, we love people, and wildlife, and everybody. Everything that lives on this land is alive, including trees, even rocks. And they'll talk to the tree and say, "Let us grow together." When the person is a hundred years old and goes back to that same tree, now it's grown. And he goes there again and becomes a child again, and he lived for two hundred years along with the tree. And all through life it didn't speak. For us as people, when we speak to animals, they won't speak back to us, even they're suffering.

My people, I am thankful for you all being here. I'm giving you this message for this reason, so that you can all work together. We think a lot about it when people come to talk to us about our food. Even children. I've listened to young people in town speaking about it. They say, "Why are they saying this? What's going to happen in the future?"

If just three people decide on a solution, then it's not going to be working really well. So I would really appreciate it if all of you have come to a conclusion, some sort of solution to work with each other. Just don't leave without making some kind of decision.

Scientific Evidence

The SRRB also considered science evidence and analysis of the opportunities and challenges in a collaborative wildlife management process. There is a strong literature in the field of resource management studies celebrating the institutions of collaborative management that have been primarily forged through indigenous land claim agreements. However, research on experiences in co-management also points to fundamental problems with the institution resulting from persistent inequities in power and resources.

In their submissions, Colville pointed the SRRB to Paul Nadasdy's case study of Dall's sheep co-management involving the Kluane First Nation (Yukon Territory), and his analysis of the benefits and difficulties inherent in co-management systems. ¹⁶³ Colville's presentation at the Hearing cited Nadasdy as follows:

Improved management and local empowerment cannot be achieved through any attempt to "include" local elders and hunters into the existing state-management system simply through the production and use of TEK [traditional ecological knowledge] artifacts. Instead, it will require that local beliefs, values, and practices themselves to be accepted as a valid basis for action. This will require changes to current practices of resource management and environmental assessment to allow these people to play a meaningful role in these processes as decision-makers. ¹⁶⁴

The SRRB has recognized some of these challenges in its own work and partnered in two research projects that highlight ongoing difficulties in the SRRB's efforts to achieve the vision of co-management.

In 2003, Darwin Bateyko examined the functions of the SRRB and found four key barriers to effective co-management:

- 1. staff turnover;
- 2. lack of ownership and understanding of the SRRB's work at the community level;
- 3. lack of incorporation of available traditional knowledge; and
- 4. lack of participation by RRCs.

An example is D. Armitage, F. Berkes and N. Doubleday. 2007. *Adaptive Co-Management: Collaboration, Learning, and Multi-Level Governance*. UBC Press. The authors critique centralized, bureaucratic approaches to resource management and points to the intersection of co-management and adaptive management (based on monitoring, assessing, and learning) as a means of dealing with social-ecological complexity.

¹⁶³ P. Nadasdy. 2003. *Hunters and Bureaucrats: Power, Knowledge, and Aboriginal-State Relations in the Southwest Yukon*. UBC Press. As cited in A. Legat, supra, footnote 16, PR 3.18

¹⁶⁴ P. Nadasdy. 1999. The Politics of TEK: Power and the 'Integration' Of Knowledge. *Arctic Anthropology* 36(1-2):1-18. Republished in Nadasdy 2003, supra, footnote 16. Cited in Colville. 2016 (March 2). *Bluenose East Hearing Presentation*. 2, PR 4.01.

All four factors centre on weaknesses in SRRB-community relationships and the reality that the SRRB was viewed as "a government agency where they have little input into the decisions that are being made." ¹⁶⁵ Bateyko also noted that lack of capacity, dissatisfaction with the land claim, and the pursuit of self-government are external factors limiting the SRRB.

In 2007, Ruaraidh Carthew explored the evolution of collaborative relationships following implementation of the SDMCLCA in 1993. He found that the transition to co-management resulted in more bureaucracy, which limits the participation of 2ehdzo got', ine (harvesters) and constrains the ability of managers to respond to change. 166

More recently the late Doug Urquhart, former Executive Director of the Porcupine Management Board, reflected on the experience of co-management in a presentation at the 2010 North American Caribou Workshop. Based on his own experience and interviews with colleagues, Urquhart explored whether co-management had led to progress with respect to a number of factors affecting 2ekwé, including wolves, wounding loss, habitat loss, disturbance, industrial development, the "let the leaders pass" protocol, and harvesting. In all cases, he found that the existing co-management approach has close to no positive impact on 2ekwé conservation.

This being said, Urquhart acknowledged that co-management is here to stay, and offered a number of insights into the causes of ineffectiveness and possible solutions. One of Urquhart's key suggested solutions is "bridging the science/TK divide" as "one of the most worthwhile areas of co-management attention." His conclusions echo the analysis in Colville's written submissions, offering some hope: "Getting people together is one thing – having them understand and respect each other is something else. It may not directly affect caribou but greater cooperation and less friction in the future is bound to have some benefits on the land." ¹⁶⁷

Balance of Evidence

All Parties at the BNE ?ekwé Hearing were of a common mind that ?elehé ?eghálats'eda is a desirable foundation for effective ?ekwé conservation, and all expressed willingness to work toward achieving the institutional framework for this created by the SDMCLCA.

However, community witnesses made it clear, in part by repeating assertions about the need to work together, that this goal is far from being achieved at present. The social science literature provides additional insights into causes of Dene and Métis frustrations regarding attempts to 2elehé 2eghálats'eda with respect to research, monitoring and decision-making. A strong starting

¹⁶⁵ D. Bateyko. 2003. Evaluating Co-management in the Sahtú: A Framework for Analysis. Master's Degree Project. University of Calgary.

¹⁶⁶ R. Carthew. 2007. Beyond Bureaucracy: Collaborative relationships in the transition to co-management – a case study in the Sahtú Region, Northwest Territories, Canada. Master's Thesis. Centre for Transdisciplinary Environmental Research (CTM), University of Stockholm.

¹⁶⁷ D. Urquhart, supra, footnote 150, 111-112.

point for addressing this situation lies in the requirement for evidence-based decision-making that treats Dene náowerá and science with equal hegerichá (respect).

Recent experiments in "co-production of knowledge" such as the caribou population research led by Jean Polfus (mentioned in Theme 2: ?ekwé K'éts'¡ne gha Daradé? – Population Trends) have strong potential to bridge into genuinely zełehé zeghálats'eda decision-making processes. As well, community-driven conservation planning piloted by Dél¡ne indicates that such initiatives can nurture strong trust-based zełehé zeghálats'eda processes with regional and cross-regional implications. Moreover, the evidence suggests that the path to robust zełehé zeghálats'eda gozekwé (caribou co-management) lies less in strengthening the authority of the SRRB – which evidence shows leads to increased community resentment – and more in empowerment of community ?ehdzo Got'¡ne as leaders in conservation. As Colville has put it in other discussions on wildlife management, an zełehé zeghálats'eda system without strong ?ehdzo Got'¡ne is "like a table without legs." The way forward for the SRRB thus involves a strong role in facilitation and coordination of community planning, research and conservation initiatives, and supporting environmental leadership development.

The SRRB agrees that new challenges in 2ekwé conservation require measures to:

- 1. Review the spirit and intent of the system for 2elehé 2eghálats'eda and integrated management defined in the SDMCLCA, and
- 2. Develop innovative approaches to make lexé eghálats'eda and integrated managementmore robust.

This system must be cross-regional in scope, encompassing the entire landscape of 2ekwé habitat. The SRRB will vigorously exercise its mandate to review community, cross-community and cross-regional 2ekwé conservation plans and approve completed plans, with a view to the plans' contributions to the larger 2elehé 2eghálats'eda and integrated management system.

Policy Priorities

Hearing Decision 14

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will prioritize support for ?ełehé ?eghálats'eda (collaborative) research, community-driven conservation planning, and community environmental leadership development as essential components of robust ?ełehé ?eghálats'eda go?ekwę (caribou co-management) in the Sahtú Region.

Hearing Decision 15

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) will exercise its power under the SDMCLCA to review and approve community, regional and cross-regional BNE 2ekwé conservation plans, and to contribute to 2elehé 2eghálats'eda (collaborative) implementation of approved plans.

Part C: Dánít'a ?ekwé k'éts'ine gha daradé? (Causes of Decline)

There was considerable discussion at the Bluenose East ?ekwé Hearing about the many possible causes of decline in ?ekwé populations other than Dene and Métis náts'ezé, including climate change and associated dryness and risks of wildfires, economic development, and predation. Part C themes address these concerns as follows:

Hearing Theme 6 – Sahtú Got'ıne hé ?ekwé hé Go2ılígu Néné (Cold Climate People and Caribou)

Hearing Theme 7- ?ededáhk' ó Gozekwé (Caribou Habitat) and Narek' ó (Wildfires)

Hearing Theme 8 – ?ekwé gha Né K'éts'edí (Land Use Planning)

Hearing Theme 9 – ?ekwé Łákídóko (Predators)

The SRRB is of the view that considerable community-collaborative research is required to address questions posed about these factors in the decline of the BNE 2ekwé herd. Thus each of the four themes is linked with a Research Priority. However, the SRRB also determined that limitations in Dene náoweré and science should not prevent co-management partners from taking precautionary actions for 2ekwé conservation, and therefore four Policy Priorities were also identified.

Hearing Theme 6 - Sahtú Got'ıne hé ?ekwé hé Gozılígu Néné (Cold Climate People and Caribou)

Both Dene náoweré and science evidence provided in the Hearing indicate that the shared homeland of Dene/Métis and 2ekwé is increasingly experiencing the effects of 2ehdanagokwi (climate change). The SRRB weighed the evidence regarding whether and to what extent specific measures are required with respect to 2ehdanagokwi for 2ekwé conservation.

Dene Náowerá Evidence

The Déline plan indicates a community consensus that "many of the problems we are currently facing on the land are connected to climate change," les echoing the case made by Sheila Watt-Cloutier in her recent book *The Right to Be Cold*. 169 The Déline plan observed:

¹⁶⁸ DEWG, supra, footnote 3, 19.

¹⁶⁹ S. Watt-Cloutier. 2015. *The Right to Be Cold: One Woman's Story of Protecting Her Culture, the Arctic and the Whole Planet.* Penguin Canada.

Sahtú got'ıne gha zılígu néné hé zekwé gha zılígu néné (Sahtú people are a cold climate people and zekwé are a cold climate animal). That is, zekwé rely on a cold climate and the type of food that grows in their zededáhk'ó [habitat] to sustain their way of life, and Dene rely on the maintenance of these systems. If zekwé and Dene are to survive, then this distinct habitat type and climate must be preserved as much as possible. 170

The Déline plan listed a number of changes in rededáhk' á gorekwé (caribou habitat) that may be associated with rehdanagokwi. The list includes a prophecy warning of dire consequences if action is not taken. Changes that the Déline community members spoke of include:

- The land is drier.
- There is more risk of fire.
- There are more goregho (shrubs) on the tundra.
- Development is happening in other areas that 2ekwé travel through.
- ?ekwé behaviour is changing; they seem to be travelling differently on the land, possibly not travelling as far as they normally would.
- Snow and ice conditions are changing, and affect how well 2ekwé can travel and access food in winter.
- There is less zededáhk' á (habitat) for zekwé to survive in.
- Insects cause 2ekwé stress, so any increases in insects affect caribou health.
- ?ehtsoo Ayha predicted that ecological and cultural integrity would be at risk in the future
- ?ejire (muskoxen) are moving back into 2ekwé areas, causing them to move away from some areas.

Keeping in mind ?ehtsoo Ayha's prophesy, the Déline plan outlined a series of "bigger picture" policy-related actions and local actions needed to address the causes of ?ehdanagokwi.

Colville witness David Codzi pointed to the historical knowledge that Dela Got'ınę people have about 2ehdanagokwı:

We have a lot of historical knowledge on the changes that are happening on the land today. You know, the land has been changing for a long time. Just recently it's been rapid, but it has been changing for a long time. ¹⁷¹

The WRRB's Traditional Knowledge Technical Session included an observation that in spring, 2ehdanagokwi creates difficult and unsafe harvesting conditions. ¹⁷² At the WRRB Hearing, observations and concerns regarding the impacts of 2ehdanagokwi were discussed by several

¹⁷⁰ DEWG, supra, footnote 3, 24.

¹⁷¹ D. Codzi, HT March 2 (255:5-9), PR 5.02.

¹⁷² WRRB. 2016 (March 22). BNE TK Technical Session summary, 7, WRRB PR 092.

Tłįchǫ community witnesses, including Tłįchǫ Government witnesses Dr. John B. Zoe, ¹⁷³ Joseph Judas, ¹⁷⁴ and Joe Rabesca, ¹⁷⁵ and community witness Sam Simpson. ¹⁷⁶

Scientific Evidence

The SRRB is aware of the emerging scientific consensus that climate change is causing profound, rapid changes in the physical and biological environment in the Arctic. ¹⁷⁷ Research has shown that the degree of warming has been greater in the Arctic than elsewhere, a phenomenon termed "amplification." Research further indicates environmental changes will be greater in northern latitudes. Large scale changes such as the loss of sea ice affecting weather patterns, the thawing of permafrost, earlier thawing and breakup of ice on lakes and changes in the types and abundance of plant species are expected to impact terrestrial species and zehdzo got' ine (harvester) access to the land. ¹⁷⁸ Many of the changes reported in the physical environment and biological communities reported nearly a decade ago by the Arctic Climate Impact Assessment (ACIA, see Figure 6, page 56 below) ¹⁷⁹ correspond to those reported by Sahtú got' ine in the SRRB Hearing and summarised in the Déline plan.

A study of Gwich'in harvesting of Porcupine 2ekwé noted a number of changes in weather patterns and the physical environment that resulted in changes to 2ekwé migration and body condition, higher tsia (calf) survival due to earlier snow melt, and also impacts on 2ehdzo got'ine (harvesters') ability to access the herd. ¹⁸⁰ A review of the status of 58 circumpolar 2ekwé and reindeer herds noted that major events in the population dynamics of 2ekwé, such as migration, rutting, calving, and the growth and body condition of tsída (females) and tsia depends to a great extent on the timing of environmental factors, such as the greening and growth of plants, snow melt, and insect emergence – all of which will be affected by ?ehdanagokwi. ¹⁸¹

¹⁷³ WRRB BNE HT April 6 (130:3-4), WRRB PR 166.

¹⁷⁴ WRRB BNE HT April 7 (10:16-24), WRRB PR 167.

¹⁷⁵ WRRB BNE HT April 7 (121:20-25, 122:1-5), WRRB PR 167.

¹⁷⁶ WRRB BNE HT April 8 (80:1-4), WRRB PR 168.

¹⁷⁷ ACIA. 2004. *Impacts of a warming climate*. *Arctic Climate Impact Assessment*. Cambridge UP. (http://www.acia.uaf.edu). As cited in C.R. Macdonald. 2016. SRRB Final Technical Review - Science Advisor Colin Macdonald, PR 3.17

¹⁷⁸ IPCC. 2014. Climate Change 2014: Synthesis Report.Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. R.K. Pachauri and L.A. Meyer (eds.) IPCC, Geneva, Switzerland, 151 pp.

¹⁷⁹ Macdonald, supra, footnote 177.

¹⁸⁰ Ibid.

¹⁸¹ L.S. Vors and M.S. Boyce. 2009. Global declines of caribou and reindeer. *Global Change Biology* 15: 2626-2633.

FIGURE 6: THIS TABLE ILLUSTRATES CLIMATE CHANGE-DRIVEN CHANGES AND THEIR ANTICIPATED EFFECTS ON ?EKWE; ADAPTED FROM THE ACIA OF 2004.

Effects in the Physical Environment	Effect	?ehdanagok Impacts on ?ekwé	
Physical Environment			
Permafrost	Thawing of permafrost	Migration is more difficult with thawing surface layer.	
Precipitation	Warmer temperatures and loss of sea ice increases humidity in air masses moving out of the Arctic Ocean and increases on-shore precipitation.	This may result in increase of freezing rain and increased depth of snow, making winter feeding and movement more difficult for pekwé.	
Ambient Temperature	Warming of surface temperatures above historic levels	Ambient temperature in the Arctic has increased by 1-2 degrees C in the past decades, greater than in southern regions.	
Drought	Some areas may experience drier conditions due to warmer temperatures.	The quality of food may decline, while chance of nerekó (wildfire) increases.	
Surface water flow	Thawing permafrost releases pore water that flows into streams, rivers, and lakes.	Water released from permafrost increases the turbidity and solids in local streams and rivers, affecting water quality.	
Ice	Ice-up is later in fall and thaw occurs earlier in spring.	Migration rates and routes may be affected due to changing surface water and land conditions.	
Biological System			
Plant green-up in spring	Time of green-up becomes earlier with increasing ambient temperature.	Early green-up provides favourable nutrition in early spring but timing in relation to calving is changed.	
Plant species	Increasing numbers of grasses and shrubs	New plant species could compel changes in diet for herbivores and loss of some food species.	
Invasive species	Southern species expanding their range into the NWT, or from southern to northern NWT	Invasive species of plants or animals may displace resident species.	
Distribution of species	As climate changes, and conditions become less extreme, the ranges of species change.	Changes in distribution of major species, such as zits'é (moose), zejire (muskox), and sahcho (grizzly bear) may cause	

Effects in the Physical Environment	Effect	?ehdanagok Impacts on ?ekwé
		competition with and increased predation on barren-ground herds.
Insect harassment	Insect harassment increases with warmer drier conditions.	Increased insect harassment causes loss of condition in caribou.
Disease and parasitism	Warmer climate improves survival of intermediate parasite/disease stages in the environment.	Higher incidence of disease, increased parasitism, and new species of parasites reduce body condition of caribou.

The long-term impacts of changes such as these on BNE 2ekwé are unknown, but may include changes to the annual cycles of migration and reproduction due to altered freeze/thaw cycles of lakes on the migration route, eroding permafrost, changes in weather patterns, the abundance and growth of prime food species and a myriad of other changes. A warmer, drier climate may also lead to increased wildfires on the BNE 2ekwé range which, as noted by Barichello in the Colville submission, may remove habitat suitable for 2ekwé and replace it with rapidly growing shrubs that provide habitat more suitable for 2ts'é (moose). These environmental changes are occurring at a time when the herd is under rapid decline, and the ability of BNE 2ekwé to adapt to these conditions requires increased monitoring and research.

As ENR witness Jan Adamczewski testified at the Hearing:

It is basically beyond our control. We don't know where it's going to take us. If you think about how might a changing climate affect caribou, it could be positive. It could be negative. You might see an earlier spring on the calving grounds, which might be a good thing. You might have a really hot, dry July, and that's probably not a good thing for the feeding conditions of the caribou.

We know that the winter conditions are changing. Winters are shorter. They're not as cold as they used to be. So basically, our approach on this is to try to monitor, and also to look for relationships between some of those environmental indicators and what we're seeing with the caribou herds

As far as how we're going to manage that, I'm not sure that we really have an answer on that. The best we can do is try to monitor and understand where things might be going in

¹⁸² N. Barichello. 2016 (May 13). *Technical Summary Of The Key Concerns, Regarding The Proposed Management Plan For The Bluenose-East Caribou Herd.* Appendix to Colville, supra, footnote 27, 5.

the next few years. But it's not something that we can manage unless we deal with global greenhouse gases at an international scale. 183

Balance of Evidence

Dene náowerá and scientific evidence concur that zehdanagokwi brings many varied implications for zekwé and Sahtú Got'ine alike. Possible indications of zehdanagokwi impacts include changes in zekwé health and behaviour, changes in zededáhk'á gozekwé, and changes in the conditions for náts'ezé (harvesting) and the land-based skills necessary to travel safely and find zekwé.

However, both Dene náowerá and science have also pointed to many uncertainties and unknowns with respect to social-ecological impacts of zehdanagokwi. Dene náowerá can provide some very long term historical knowledge that is not available about dynamics of environmental change in zededáhk'á gozekwé that have only begun relatively recently to be documented by scientists. Dene náowerá also offers knowledge of how people and tịch'ádíi may adapt to change, as well as risks that all may have to face if action is not taken to address the causes of zehdanagokwi.

The evidence shows that the biocultural systems that sustain newké and Sahtú Got'ine are dependent on nilígu néné (a cold climate). Precautionary measures are required to prevent the collapse of these systems. Scientific and social uncertainties about the precise dynamics and impacts of nehdanagokwi must not prevent action to address known anthropogenic (human) causes. Major policy initiatives are required to understand and address the role of nehdanagokwi and to monitor the impacts on BNE nekwé, given that environmental change (both natural osciallations in climate conditions and human caused climate change) is a likely driver of nekwé declines across the Canadian north.

The SRRB accepts Déline's plan to link with international efforts to address the causes of 2ehdanagokwi, and to reduce the 2ehdanagokwi footprint in the Déline District. The SRRB further finds that co-management partners are responsible to participate in territorial and federal efforts with respect to climate change mitigation.

¹⁸³ J. Adamczewski. ENR witness. HT March 1 (161-163), PR 5.01.

Research Priority

Hearing Decision 16

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) recommends that the Governments of Canada and the NWT seek and dedicate additional funds and support for research to understand the known and unknown impacts of ?ehdanagokwı (climate change) over the short term and long term, as it relates to ?ekwé and ededáhk'ó go?ekwé (caribou habitat), and that this research involve both Dene náoweró and science perspectives in order to to better understand and monitor the impacts of the changing environment on Bluenose East ?ekwé.

Policy Priority

Hearing Decision 17

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will prioritize working with NWT Environment and Natural Resources and other co-management partners to build awareness of the need to prevent collapse of the zılígu nę́nę́ (cold climate) ası́ı godí hé Dene ts'ılı hé (biocultural) systems that zekwę́ depend on, and to engage in community, regional, territorial and federal development and implementation of policy on zehdanagokwı (climate change) mitigation.

Hearing Theme 7- ?ededáhk' á Gozekw (Caribou Habitat) and Narek' (Wildfires)

The health of rededáhk' á gorekwé is an important consideration for rekwé conservation. Changes in the quality and extent of rededáhk' á gorekwé can be a factor in declining rekwé populations. The recent very large nerekó in other regions, as well as past experiences in the Sahtú such as the big nerekó of 1995 near Tulít'a, have caused great concern in the region about present and future impacts on rekwé and rededáhk' á gorekwé. The SRRB considered evidence in the Hearing about changes in the role of nerekó as an ecological factor which may be a result of rehdanagokwi (climate change), and actions that may need to be taken for rekwé conservation.

Dene Náowerá Evidence

Dene witnesses in the Hearing repeatedly raised concerns about the impact of narek'ó on rededáhk'ó gorekwé that is critical to rekwé health.

The Déline plan views the health of rededáhk' á gorekwé as linked to the health of the people. The plan points to increased dryness and risk of nerekó as well as increasing goregho (shrubs) as

of the changes observed by Déline Got'ine (people now inhabiting the community of Déline) in rededáhk's gorekwé. 184 The risk of nerekó as they may affect rekwé was mentioned a number of times by community witnesses at the Hearing, in part due to the recent increase in nerekó in the NWT. However, the main focal point for discussion was experiences with nerekó close to home. This is consistent with the nature of Dene náowers, which places high value on primary experience. 185,186

Fort Good Hope witness Frank T'seleie noted that in areas where there have been nerekó around Fort Good Hope, an increase in 21ts'é (moose) populations has been observed. Tulit'a Chief Frank Andrew spoke about changes in forest ecology since the 1995 nerekó in the Tulit'a area, including reductions in insects, frogs, and other smaller animals, dispersal of todzı (boreal woodland caribou), and presence of 21ts'é. Neither Chief Andrew nor T'seleie directly referred to 22kwé (the Tulit'a and Fort Good Hope areas are not considered to be core 22dedáhk'á go22kwé), but their evidence demonstrates that from a Dene náowerá perspective these experiences would be considered valuable for extrapolation to shed light on possible implications for 22kwé and 22dedáhk'á go22kwé. The Fort Good Hope 22hdzo Got'11ne final submission recommended that fires be controlled along łata go22kwé (the caribou migration corridor). 187

Nerekó was a very important issue in the WRRB BNE ?ekwé Hearing, since that region had been most recently impacted by large nerekó in rededáhk' gorekwé. At the WRRB Traditional Knowledge Technical Session, it was agreed that caribou trails and water crossings need to be considered when discussing nerekó management. At the WRRB Hearing, community witness Sam Simpson spoke at length about the impacts of nerekó on rekwé grazing areas, small animals, animal denning areas, and people's ability to travel on the land. He also expressed frustration about ENR nerekó-fighting policies. Sommunity witness Charlie Football echoed the opinion that community members should be involved in nerekó management. Community witness James Lafferty spoke about the need to protect rededáhk' gorekwé from nerekó impacts. Interestingly, the Tłącho Ekwò zò gha dzo nats'ędè - "We Live Here For Caribou report does not mention nerekó as a significant factor with respect to cumulative impacts

¹⁸⁴ DEWG, supra, footnote 3.

¹⁸⁵ Legat, supra, footnote 143.

¹⁸⁶ Rushforth, supra, footnote 138.

¹⁸⁷ Fort Good Hope RRC, supra, footnote 106.

¹⁸⁸ WRRB, supra, footnote 172, 5.

¹⁸⁹ WRRB HT April 8 (77-80), WRRB PR 168.

¹⁹⁰ WRRB HT April 8 (234:16-25, 235:1-2), WRRB PR 168.

¹⁹¹ WRRB HT April 8 (218:16-25, 219:1-6), WRRB PR 168.

affecting Bathurst 2ekwé (ekwò in Tłıcho language). ¹⁹² Parlee and Thorpe note that very little traditional knowledge has been documented on this theme. ¹⁹³

Scientific Evidence

The SRRB heard evidence in the Hearing that major questions remain about the current condition of BNE rededáhk' á gorekwé, how it is changing in response to rehdanagokwi (warming climate) and whether changes in the condition of rededáhk' á gorekwé is implicated in the rapid decline of the herd. As noted by Barichello in the Colville final submission, pregnancy rate, tsia (calf) birth weight, survival and growth are closely linked with the body condition of tsída (females), which depends to some extent on the availability and nutritional status of forage, 194 yet very little information is available on the condition of the BNE rekwé range. 195

ENR presented evidence that nerekộ are considered to be part of the natural ecology of rededáhk' 5 gorekwé and an integral part of its renewal. 196 Due to the preference of rekwé for lichens and mosses at some times of the year, and the slow re-growth and recovery of the burned areas to prime food for rekwé, possibly as long as several decades, the impacts of changes in quality of rededáhk' 5 gorekwé with nerekộ frequency for BNE rekwé are still uncertain.

However, research has been done on zekwé response to nerekó elsewhere. A study of burned areas on the Bathurst zekwé wintering range showed a clear preference by zekwé for areas with a high percentage of lichen and low numbers of conifer trees, and an avoidance of burned areas. ¹⁹⁷ A study of Alaskan and Yukon zekwé showed that increases in burned areas, and the resulting decreases in the age of lichen stands due to areas recovering from fires could alter the distribution of the herds, ¹⁹⁸ which would impact the ability of zehdzo got'ine (harvesters) to return to traditional areas for náts'ezé.

The condition of BNE rededáhk'á gorekwé in terms of burned and recovering areas is largely unknown. Data presented by ENR shows large areas of the winter range of the BNE rekwé to have undergone fires since 1965 (Figure 7, page 62¹⁹⁹), however there is no indication of the current status of the burned areas, the levels of recovery and how suitable the areas are for BNE

¹⁹² Dedats'eetsaa: Tłıcho Research and Training Institute. 2016. Ekwò zò gha dzo nats'edè

[&]quot;We Live Here For Caribou": Cumulative Impacts Study on the Bathurst Caribou. Theho Government.

¹⁹³ B. Parlee, N. Thorpe, and T. McNabb. 2013. *Traditional Knowledge: Barren-Ground Caribou in the Northwest Territories*. Unpublished manuscript. University of Alberta: 74.

¹⁹⁴ N. Barichello, supra, footnote 182, 4.

¹⁹⁵ ENR. 2015 Taking care of caribou - ENR Technical Report, 47.

¹⁹⁶ Ibid, 51

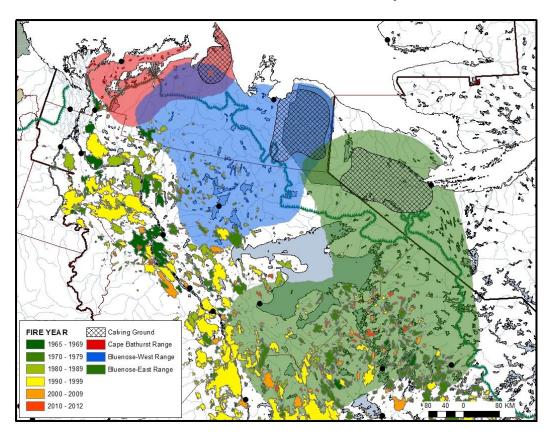
¹⁹⁷ T.A. Barrier and C.J. Johnson. 2012. The influence of fire history of selection of foraging sites by barren-ground caribou. *Ecoscience* 19:177-188.

¹⁹⁸ D.D. Gustine, T.J. Brinkman, M.A. Lindgren, J.I. Schmidt, T.S. Rupp and L.G. Adams. 2014. Climate-driven effects of fire on winter habitat for caribou in the Alaskan-Yukon Arctic. *PLoS One* 9:e100588 ¹⁹⁹ ENR, supra, footnote 2, 51.

rededáhk'á gozekwé. Research conducted on burned areas in Bathurst zededáhk'á gozekwé show that extensive losses of lichen-dominated areas can significantly reduce the number of zekwé that the range can support. Recent research shows that areas at the treeline and on the tundra, where narek'ó were previously extremely rare, are especially vulnerable. Modelling in one study indicated that the risk of narek'ó will likely increase up to fourfold. Recent examples of severe and unusual nerek'ó in treeline/tundra areas have been seen in Alaska (summer 2007 and 2015) and Siberia (summer 2016).

ENR has long taken a "values-at-risk" approach to fire management. Community mapping projects have provided opportunities for helping to determine valued areas to be protected. Protection of rare habitat, culturally significant areas and similar values will influence suppression decisions. ²⁰²

FIGURE 7: NEREKQ HISTORY FROM 1978 TO 2012 WITHIN AND NEAR THE RANGES OF THE BLUENOSE EAST,
BLUENOSE WEST AND CAPE BATHURST ?EKW¢.



²⁰⁰ Barrier and Johnson, supra, footnote 197.

²⁰¹ A. M. Young, P. E. Higuera, P. A. Duffy, F. S. Hu. 2016. Climatic thresholds shape northern high-latitude fire regimes and imply vulnerability to future climate change. *Ecography* 39: 001-012.

²⁰² http://www.enr.gov.nt.ca/programs/fire-operations/managing-wildland-fire-nwt

Balance of Evidence

In weighing the evidence, the SRRB concludes this issue of the relationship between nerekó ecology and the quality of rededáhk'ó gorekwé is an important and unresolved issue that requires community-collaborative research. The SDMCLCA requires that such research must involve the participation of the Pehdzo Got'ıne. 203

A collaborative research approach is needed, involving Dene náowerá and science. The research must include an assessment of 2ekwé needs, the specific locations of the BNE 2ekwé within its range, and the condition of the range to support the herd. Such an assessment is needed to understand impacts to the range from natural and anthropogenic (human) disturbances.

The SRRB also recognizes that it has responsibilities under the SDMCLCA for forestry comanagement, in addition to wildlife co-management. ²⁰⁴ To date, there has been limited engagement between ENR and the SRRB on 2ededáhk' matters, including nerek' of concerns. The SRRB recommends that ENR work with co-management partners, including the SRRB and 2ehdzo Got'ine, to develop a "forest management" plan for the Sahtú Region with a focus on values-at-risk with respect to 2ededáhk' of gozekwé and encompassing the edge of the treeline to the north of Great Bear Lake, as required by sections 14.1.9 and 14.1.10 of the SDMCLCA.

Research Priority

Hearing Decision 18

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) recommends that NWT Environment and Natural Resources, SRRB and ?ehdzo Got'ınę (Renewable Resources Councils) work together to develop a plan for community-collaborative Dene náowerá and science research on ?ededáhk'á go?ekwé (caribou habitat) and nerekó (wildfire) ecology and management.

²⁰³ SDMCLCA, sections 13.8.40, 13.9.1.

²⁰⁴ SDMCLCA, chapter 14.

Policy Priority

Hearing Decision 19

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will work with NWT Environment and Natural Resources and ?ehdzo Got'ınę (Sahtú Renewable Resources Councils) to review the current nerekǫ́ (wildfire) management policy and develop a new "forest management" plan for the Sahtú Region, with a focus on determining values-at-risk with respect to ?edáhk'ó go?ekwę́ (caribou habitat) and encompassing the edge of the treeline to the north of Great Bear Lake.

Hearing Theme 8 – ?ekwé gha Né K'éts'edí (Land Use Planning)

The SRRB heard evidence during the Hearing of concerns about the impact of land use decisions (such as exploration and development permits and the establishment of conservation or protected areas) on the health of ?ekwé. The SRRB considered evidence that might highlight how comanagement partners might support wise ?ekwé gha né k'éts'edí (land use planning for caribou).

Dene Náowerá Evidence

The Dél₁ne plan noted evolving concerns about the need to protect key rededáhk's and łata (rekwé habitat and migration corridors). Dél₁ne pointed out specific areas where more research regarding appropriate land use planning protections is needed:

We know the areas and types of <code>?ededáhk'</code> [habitat] that <code>?ekw</code> use and need, but more work still needs to be done on identifying important areas and understanding what will be necessary to protect them. Some of these could be considered 'critical habitat', and may include:

- Ts'o néné– muskeg
- Łata migration routes or corridors, land bridges between lakes
- ?ekwéné golek'á calving grounds
- Other seasonal rededáhk' á (e.g., wintering areas, water crossings, etc.). 206

Dél₁ne also proposed that several critical 2ekwé habitat and migration corridors should be protected through revisions to regional land use plans, both within and outside the Sahtú Region:

- ?ehdaıla (Caribou Point) consider permanent protection
- Tehkaicho Dé (Johnny Hoe River) consider permanent protection
- Its'éré Túé (Hottah Lake)
- ?ekwę́ nę́ golek' ź (Bluenose East calving Grounds)

²⁰⁵ DEWG, supra, footnote 3, 27

²⁰⁶ DEWG, supra, footnote 3, 20.

- Łata 2ekwé sub-zones (caribou migration corridors or 'land bridges')
- Kw'ıjí 2ekwé sub-zones ('mosquito berry hills') characterized by well-drained, slightly higher terrain, covered in old growth black and white spruce forests
- Nóre? (caribou water crossings)
- Ts'o néné (muskeg areas)²⁰⁷

Community Parties in the Hearing repeatedly raised concerns about the critical need to protect the BNE 2ekwé né golek'é (calving grounds). This is consistent with the unanimous resolution passed by all the Sahtú organizations at the Special Caribou Assembly held in Colville in April 2015:

4.0 We, the undersigned, with the support of the Sahtú Secretariat, oppose the proposed Tundra Copper Exploration project until steps are taken to ensure the protection of the Bluenose East caribou calving ground; and that if caribou habitat and caribou are not properly protected, that we oppose this development.²⁰⁸

Scientific Evidence

Migratory ?ekwé herds follow an annual cycle based on reproductive needs and the requirements for high quality ?ededáhk' á (habitat) that will provide nutritional requirements and protection from ?ekwé łákídáka (predators).

After wintering south and east of Great Bear Lake, BNE tsída (females) migrate to their 2ekwé né golek'ó to the west of Kugluktuk, Territory of Nunavut, to calve in early June (see Figure 2, page 13). Pekwé né golek'ó provide suitable dietary requirements for the tsída but also protection from 2ekwé łákídóko (predators) at a critical time for the herd. The SRRB is aware that studies in Alaska have shown that disturbance of the herd during calving may cause the tsída to move into sub-prime 2ededáhk'ó, resulting in a loss in productivity. ²⁰⁹

While displacement of the herd may not be significant while the herd is expanding or at peak numbers, it may be a critical factor when the herd is declining and in low numbers. At such times, disturbance causing poor tsia (calf) recruitment is especially problematic.

ENR provided evidence that protection of the herd from human-caused disturbance on the calving grounds is an important component of allowing the herd to recover.²¹⁰

Evidence was provided throughout the Hearing that protection of zekwé zededáhk' é elsewhere on the range from undue development, and in the presence of other factors such as drought,

²⁰⁷ DEWG, ibid, 21-23.

²⁰⁸ SSI and SRRB, supra, footnote 62, 9-10, PR 3.13.

²⁰⁹ R.D. Cameron, W.T. Smith, R.G. White and B. Griffith. 2005. Central Arctic caribou and petroleum development: distributional, nutritional, and reproductive implications. *Arctic* 58:1-9.

²¹⁰ HT March 1 (107-109), PR 5.01

narek' (fires) and zehdanagokwı (climate change), should be an important consideration in zekwé gha né k'éts'edí.

Balance of Evidence

There is wide agreement in the evidence of Sahtú community witnesses and scientists that 2ekwé né golek'ó (calving grounds) are critical 2ekwé 2ededáhk'ó and must be protected. Dene náoweró and science evidence presented during the Hearing also expressed concern that current and new development pressures that could affect critical 2ekwé né golek'ó for BNE 2ekwé and the need for land use plans that address those concerns.

The SRRB recognizes that the BNE 2ekwé né golek'é is located in Nunavut and outside of the jurisdiction of the SRRB and the Government of the NWT. Co-management partners in the Sahtú bear a shared responsibility, however, to provide input into Nunavut Wildlife Management Board (NWMB), Nunavut Land Use Planning Board and regulatory decisions regarding the importance of mechanisms for establishing né káríla k'ets'edí (conservation areas).

The SRRB is also aware that a five year review of the Sahtú Land Use Plan is scheduled for 2018-2019. This will provide a critical opportunity to reconsider requirements for né káríla k'ets'edí (land protection) necessary to protect rededáhk's and lata (caribou habitat and migration corridors).

The SRRB will prioritize working with Dél₁ne and co-management partners to identify critical BNE 2ekwé 2ededáhk' and provide input on requirements for né káríla k'ets'edí.

Research Priority

Hearing Decision 20

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will support community-collaborative initiatives to identify, name and conduct baseline assessments of critical ?ededáhk'ś go?ekwę́ (caribou habitat) in the Sahtú Region.

Policy Priorities

Hearing Decision 21

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will work with Délınę and co-management partners to provide input on requirements for establishing nę kárila k'ets'edi (conservation areas) during the Sahtú Land Use Plan five-year review scheduled for 2018-2019.

Hearing Decision 22

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will work with comanagement partners in the NWT to provide input into Nunavut Wildlife Management Board, Nunavut Land Use Planning Board and Nunavut regulatory decisions regarding the importance of protecting the Bluenose East 2ekwę nę golek' (calving ground).

Hearing Theme 9 – ?ekwé Łákídáka (Predators)

The Déline plan tells the story of ?ekwé and Díga (Wolf) godi kehtsi (making an agreement) to coexist, as an illustration of a Dene approach to understanding the relationship between ?ekwé and díga. 211 The ENR plan outlines a pilot predator management program planned in collaboration with the Thicho Government (TG). In Part A of the report on its BNE ?ekwé Hearing, the WRRB recommended a "collaborative feasibility assessment of options for dìga management, led by the Board" to complement the ENR-TG program. 212 The SRRB heard further evidence about the planned predator management program when the SRRB attended the WRRB BNE ?ekwé Hearing in Behchokò. Control of ?ekwé łákídókə is an unresolved "Hot Topic" in the *Taking Care of Caribou* plan. Consistent with other forums, during its own Hearing, the SRRB heard evidence and questions about the effectiveness of ?ekwé łákídókə management actions in general, and díga management specifically.

When the earth was created, díga (wolf) and zekwé held a big meeting around the Aklavik area. Díga said to zekwé, "Zekwé should not be on earth any longer." Zekwé responded, "As long as we've been here, we've been good and we've eaten well. We've done nothing to you. We have not destroyed your food. You have lived well off us. So what's wrong with us?"

Díga said, "That's right. There's nothing wrong with pekwé. They don't get in anybody's way. So we shouldn't tell them what to do. Let them graze, and feed, and wander around. Let's not destroy them completely, because in the future we will need them."

– from Belare wíle Gots'é ?ekwé, 5.

²¹¹ DEWG, supra, footnote 3, 5, 15.

²¹² WRRB. 2016 (June 13). WRRB Reasons for Decision Final Report, Part A – Bluenose-East Caribou Herd, 50, WRRB PR 179.

Dene Náowerá Evidence

The Déline plan says that "we can't do much about predators because they need to achieve their own balance." This is consistent with the ecological narrative in the keystone story of the meeting between díga and rekwé that frames the plan. The plan does note that disrespectful behaviour by rehdzo got'ine (harvesters) like chasing rekwé can make them vulnerable to predators. 214

At the Hearing, Colville Chief Wilbert Kochon explained at length why deliberate programs of diga control are not considered appropriate, pointing out that the best form of "control" is for people to be exercising their traditional náts'ezé (harvest) practices on the land. For Chief Kochon, the concept of control is connected to people's presence and 2ekwé hé Dene ts'ılı (sustaining relationships with 2ekwé).

Wolves are important for us, because they keep the caribou healthy. Always keeping the caribou moving. When you get rid of that balance, what happens then? When the caribou get sick, the wolves will kill it right away, and that sickness will never spread. If the caribou got sick and spread that sickness, the caribou will die faster in big numbers. So those kind of things you should really look at before you start killing so many wolves, or start putting bounties on it The way to control that is to be on the land. When you're on the land, the caribou comes around where you are, and the wolves stay away. Right now the wolves are just having a field day because there's nobody out there ... Maybe we have to work together more to try to control that. Not to wipe out the wolves, but control it more. And maybe try to get people out there more.²¹⁵

ENR witnesses asked each community Party in turn about their perspective on díga control. In his response to one such query, Tulít'a Chief Frank Andrew echoed the view of his Colville counterpart:

The wolf are part of the caribou, from what I hear from my father way back, you know, when he said if there's a lot of caribou, there's a lot of wolves around it. It's always been like that, time immemorial, he said. So if we slaughter or kill all the wolves, then the caribou might disappear. So we have to think about this.²¹⁶

SRRB Special Advisor and Tulít'a witness Leon Andrew provided supplementary testimony as a Shúhta Got', nẹ (Mountain Dene):

²¹³ DEWG, supra, footnote 3, 14.

²¹⁴ DEWG, ibid, 28.

²¹⁵ HT March 1 (122:12-25, 123:1-16), PR 5.01.

²¹⁶ HT March 3 (55:11-21), PR 5.03.

The mountain Dene people respect the wolf in a way, because back in the ice age, the wolf kind of helped our people learn how to hunt. So that was the important role they played in the beginning of time, our life. So I really have respect for them. To go after the wolf and clean it out, or try to clean it out, I don't know. I have mixed feelings about that.²¹⁷

Fort Good Hope witness Harry Harris described díga as "the doctor," and recalled the traumatic experience of past government díga culling programs including the use of poison, which affected other tլch'ádíı (wildlife) as well. He testified that, in his view, "we should let nature take its course."

Similarly, the WRRB Traditional Knowledge Technical Session included a discussion of 2ekwę́ łákídókə. The summary report documented agreement that "wolves and bears have relations with caribou that are bigger than just their actions as predators."²¹⁹

Likewise, the KHTO submission to the NWMB provided insights into a Kitikmeot Inuit perspective on relationships with both díga and sahcho (grizzly bears). It is notable that from a Dene náowerá perspective, Kitikmeot Inuit would be authorities on sahcho relationships with 2ekwé, since their primary interactions are reportedly at 2ekwé né golek'á (calving grounds). Like Colville witness Wilbert Kochon, the KHTO indicates that Inuit are the best positioned to ensure that 2ekwé relationships with 2ekwé łákídáka are in balance.

For years, the KHTO has expressed to the GN-DOE [Government of Nunavut-Department of Environment] the observations of the high number of predators, such as wolves and grizzly bears that are present in the range of the BNECH [BNE Caribou Herd]. Traditionally, Inuit have harvested wolves and grizzly bear in this area as part of day-to-day life on the land. Now that most Inuit spend the majority of their time in established communities, there are fewer Inuit on the land and less opportunity to harvest these animals.

Inuit have strong hunting skills in general, and there is a long history as wolf hunters. This combined with extensive traditional knowledge about wolves and grizzly bear give Inuit the ability to be very effective predator managers.²²⁰

Science Evidence

The number of caribou lost from BNE 2ekwé annually to predation by díga, sahcho, wolverines and eagles is a major question. The SRRB is aware that studies conducted on Porcupine 2ekwé

²¹⁷ HT March 3 (56:7-19), PR 5.03.

²¹⁸ HT March 3 (131:12-25, 132:1-2), PR 5.03.

²¹⁹ WRRB, supra, footnote 172, 9.

²²⁰ KHTO, supra, footnote 57, 6.

(>100,000 individuals) have shown that díga kill about 7,600 bedzio (males) and tsída (females) annually, primarily during fall and winter. Some scientists have estimated that díga densities greater than 6.5/1000 km² will cause a herd to decline, while lower densities of díga will allow the herd to increase. An Alaskan study reported that sahcho killed from two tsia (calves) per day for males to over 6 tsia/day for females with cubs, over the two weeks of the study.

The extent of BNE 2ekwé losses to predation is unknown, as is the timing of when most losses occur during the annual cycle of calving, migration and overwintering. A recent study of díga distribution near the Bathurst herd indicates that as the herd declined and spent more time in its northern range in the summer, the pressure from díga was reduced due to the increased distance between the díga denning areas and the herd. ENR reported 4.43 active díga dens/1000 km in Bathurst 2ekwé habitat, based on an aerial survey flown in 2012. Díga dens were slightly more numerous than the lowest level of 3.55 dens/1000 km recorded in 2011.

A pup count in 2012 showed low numbers of pups per den, in addition to a generally low number of active dens. ²²⁵ If this is also the case in BNE 2ekwé habitat, then predation from díga on the tundra will also decrease as the population declines and spends more time in the northern portion of its range.

ENR has responded to calls to reduce predation losses in the Bathurst and BNE herds with a general díga harvest program. However there have been no studies proposed to evaluate the effectiveness of the program in reducing predation losses or in aiding the recovery of the herds.

Balance of Evidence

The story about the meeting between 2ekwé and díga, ²²⁶ shared in the Déline plan, appears to be consistent with evidence from Colville, Tulít'a and Fort Good Hope witnesses at the Hearing that

²²¹ R. D. Hayes, and D.E. Russell. 2000. Predation rates by wolves on the Porcupine caribou herd. *Rangifer* Special Issue 12: 51-58. As cited in C.R. Macdonald. 2016. *SRRB Final Technical Review - Science Advisor Colin Macdonald*, PR 3.17.

²²² T. Bergerud. 1996. Evolving perspectives on caribou population dynamics, have we got it right yet? *Rangifer* Special Issue 9:95-115. As cited in C.R. Macdonald. 2016. *SRRB Final Technical Review - Science Advisor Colin Macdonald*, PR 3.17.

²²³ D.D. Young, and T.R. McCabe. Grizzly bear predation rates on caribou calves in northeastern Alaska. *Journal of Wildlife Management* 61: 1056-1066. As cited in C.R. Macdonald. 2016. *SRRB Final Technical Review - Science Advisor Colin Macdonald*, PR 3.17.

²²⁴ M.R. Klaczek, C.J. Johnson and H.D. Cluff. 2016. Wolf-caribou dynamics within the central Canadian Arctic. *Journal of Wildlife Management* 80:837-849. As cited in C.R. Macdonald. 2016. *SRRB Final Technical Review - Science Advisor Colin Macdonald*, PR 3.17

²²⁵ ENR. 2014. *Barren-ground caribou 2012/2013 harvest & monitoring summary*. Submitted to the Barren-ground Technical Working Group.

²²⁶ DEWG, supra, footnote 3, 5, 15.

Sahtú Got'ıne are carrying forward teachings of the elders about 2ekwé hé díga ts'ılı (sustaining caribou-wolf relationships).

There is support for díga management programs in other regions, but there is also acknowledgement that further Dene náowerá and scientific research is needed to understand interactions of 2ekwé and díga in the context of 2ekwé decline, and to learn about approaches to supporting the appropriate balance.

The SRRB will review and evaluate the Wek'èezhìi díga control feasibility study when it is complete, along with Dene náowerá from the Sahtú Region, as a basis for a future determination about whether a zekwé łákídáka management program should be put in place in the Sahtú.

Research Priority

Hearing Decision 23

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will review and evaluate the Wek'èezhìı Renewable Resources Board's díga (wolf) control feasibility study when it is complete, and then engage in dialogue with ?ehdzo Got'ınę (Sahtú Renewable Resources Councils) to identify future research needs and whether a díga program should be put in place in the Sahtú Region.

Part D: Náts'ezé (Harvesting)

Náts'eze was without doubt the most contentious topic at the Hearing. The requirement for the Hearing was based on direction in the SDMCLCA: a hearing is required when náts'ezé restrictions are being considered. Both ENR and Déline had submitted proposals with conservation actions including náts'ezé restrictions. Considerable evidence was provided related to the topic of rekwé kanáts'ezé (caribou harvesting) related to the following five themes:

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Hearing Theme 10 – ?ekwé Náts'ezé ?e?a (Harvest Management)
Hearing Theme 11 – Yárégo Kanáts'ezé (Smaller Male Caribou Harvest)
Hearing Theme 12 – ?ekwé Náts'ezé gha K'ínats'eneta (Caribou Harvest Monitoring)
Hearing Theme 13 – Náts'ezé Dáhk'á (Harvest Zones)
Hearing Theme 14 – ?ekwé ?e?a Hegerichá gha (Enforcement)
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Theme 10 provides an overarching consideration of evidence related to harvest management approaches. Theme 11 considers the question of whether harvesting fewer tsída (females) can aid in recovery of the BNE 2ekwé herd. Themes 12-14 examine the three key mechanisms for harvest management.

The SRRB has identified three key areas of research related to náts'ezé. Reflecting the significance and complexity of this topic and the many concerns expressed by the Parties, the SRRB has also outlined 13 Policy Priority decisions.

Hearing Theme 10 – ?ekwé Náts'ezé ?ea (Harvest Management)

A key task for the SRRB in the BNE ?ekwé Hearing is determining the best mechanism for ?ekwé náts' ezé ?e?a (harvest management).

At the heart of the SDMCLCA is a carefully negotiated balance between guarantees of Dene and Métis náts'ezé (harvest) rights with the goals of Sahtú tựch'ádíı (wildlife) and zededáhk'é (habitat) né káríla k'ets'edí (conservation). The SDMCLCA guarantees Dene and Métis tựch'ádíı kanáts'ezé (wildlife harvesting) and cultural rights, along with the right to directly participate in decisions related to tựch'ádíı kanáts'ezé and náts'ezé zeza (harvest laws). The SDMCLCA also prioritizes the objectives of tựch'ádíı and zekwé né káríla k'ets'edí for present and future generations. 228

²²⁷ SDMCLCA section 1.1.1 (a), (b), (c), (f) and (g) and 13.1.1 (a), (c), (d), and (e).

²²⁸ SDMCLCA, section 1.1.1(h) and section 13.1.1(b) and (f).

The goal of tịch'ádíi nế káríla k'ets'edí in the Sahtú Region, under the SDMCLCA, is to "manage wildlife populations and habitat to ensure the maintenance of quality and diversity including the long-term optimum productivity of those resources, and to ensure a sustainable harvest and its efficient utilization." ²²⁹

The SDMCLCA provides a detailed outline of mechanisms to achieve those goals, including the option of establishing a Total Allowable Harvest (TAH) imposing a limit on the harvest of particular tįch'ádíı species. ²³⁰ The SRRB can only establish or modify a TAH, however, if two conditions are met: (1) it must be required for conservation, and (2) it can only occur to the extent necessary to achieve conservation. ²³¹ Unless a TAH is established, the quantity of harvest by Dene and Métis may not be limited. ²³²

Dene Náowerá Evidence

The SRRB heard oral evidence from Déline, and received written evidence in the Déline plan, supporting a community conservation plan. Déline proposed that the community's own conservation plan is the appropriate mechanism to achieve the same or better conservation goals than those available through the mechanism of imposing a TAH.

Dél₁ne also told the SRRB that "harvest management systems that rely on imposing restrictions and penalties from outside will have limited success in our area. Instead, our approach is more about supporting people to become good stewards of rekwé and not relying on godedí (in which wildlife officers have enforced harvest rules and make people feel like criminals and poachers)."²³³

The Délįnę plan proposed specific tools to achieve conservation goals, including a harvest target of 150 2ekwé (mostly young males), 2ekwé gha máhsı ts'ınıwe (harvest to thank the Creator for 2ekwé, or "ceremonial harvest") and Dene béré kats'ınıwe (alternative harvest; hunting and gathering all kinds of different Dene foods). The Délınę plan and oral testimony also provided evidence of other mechanisms traditionally used by the Dene to monitor 2ekwé harvesting and ensure respectful relationships with 2ekwé. The Délınę submissions, and testimony from other Sahtú Dene and Métis witnesses, provided compelling evidence that, within the Sahtú, traditional family and community governance and sharing systems continue to operate as the foundation of an existing and ongoing mechanism for harvest management.

Colville, in its final submission, made the case that the evidence in the hearings did not establish "that a TAH is the only method by which the asserted conservation concern can be addressed, or

²²⁹ SMDCLCA, section 2.1.1, definition of "conservation."

²³⁰ SDMCLCA, section 13.5.1 and 13.5.2.

²³¹ SDMCLCA 13.5.2.

²³² SDMCLCA 13.5.2

²³³ DEWG, supra, footnote 3, 9.

even that a TAH would be an effective way of achieving a conservation result." Colville also argued that the SDMCLCA "imposes an obligation on those advocating for a TAH to satisfy the SRRB that all other less intrusive measures on the rights of Sahtú beneficiaries that might otherwise address the conservation issue will be ineffective." Colville pointed to łákídóko (predator) management, zekwé né golek'ó (caribou calving ground) and zededáhk'ó gozekwé (habitat of caribou) management as examples of other conservation measures which have not yet been undertaken and which would "address the [conservation] issue without the imposition of harvest limits." 235

The SRRB heard unanimous evidence from all the Sahtú communities that they reject the "outside" imposition of a TAH. While most Dene or Métis witnesses in the Hearing supported the validity of conservation concerns (often framed as "giving the ?ekwé a rest"), not one spoke in favour of using a TAH as the best mechanism to achieve conservation goals.

Witnesses in the Hearing often used the term "quota" to refer to the idea of an externally imposed law restricting zekwé náts' ezé (caribou harvest), and also referred to "tags" as a symbol of a quota or TAH system. When people spoke against a quota, it was with complete conviction about the negative consequences of implementing such a mechanism. Chief Frank Andrew of Tulít'a echoed a narrative about the historical experience of quotas that has been heard repeatedly by the SRRB over the years in the Sahtú Region:

You know, I remember when I was a young kid, my father was alive then. He used to go beaver hunting in the springtime. He used to get five tags. You call it beaver seal. ²³⁶ That's all you could shoot, they said. And we had a whole bunch of us. Five beaver didn't mean anything. And that's where we're going back today again. I don't think talking about tags is good. It's not going to be good for the future, for sure. ²³⁷

Colville witness Joseph Kochon made it clear that the opposition to a quota system is based on guidance that has been passed down through the generations, and that there is a spiritual dimension to this belief:

I'll just provide a little quote that my grandfather left with us before he passed on. He said: "My children, as long as I'm on this earth, I don't want to live by any type of rule, any licence, or any type of quota. He didn't just meant that for himself. He spoke for us.

²³⁴ Colville, supra, footnote 27, 5.

²³⁵ Colville, ibid, 6.

²³⁶ A "seal" was a metal tag used to mark harvested beavers as part of a quotas system historically imposed on beaver havesting in the NWT.

²³⁷ Chief F. Andrew, HT March 1 (158:18-25, 159:1-2), PR 5.01.

We're his bloodline. And that means a lot to us. However we evolve into the future, this is something that's given to us by the Creator.²³⁸

Colville Chief Wilbert Kochon confirmed his community's commitment to follow this direction from the grandfather: "We all want to do the same thing, but the one thing that we'll never agree on is the quota."²³⁹

Colville witness David Codzi further asserted that a quota or tag system should be a last resort:

It's just not for a few people to decide. Caribou tags, the current imposition of tags on Aboriginal harvesters under the regulations of the *Wildlife Act*, is rejected. There is neither traditional knowledge nor science-based evidence justifying such conservation measures. It's like you're just jumping straight to the last measure and not trying out other things.²⁴⁰

Déline witness Walter Bayha, who presented the Déline plan on behalf of the Déline ?ekwé Working Group, made it clear that the Déline plan does not include a quota system, and that it would never have been approved by the community had this been the case:

One of the things I've learned, and probably the biggest one: if you mention quota to them, if I ever started with that in any of our meetings, I think they would have thrown me out along with everybody else that relates to quotas. I think that is a poor way of dealing with conservation plans.²⁴¹

This evidence at the hearings is consistent with the emerging and strong consensus of all the Sahtú communities. Leaders and representatives of the SSI and all five ?ehdzo Got', ine (RRCs), Land Corporations, and Band Councils passed a series of unanimous resolutions at a special ?ekwé assembly held in Colville Lake in April 2015, including the following resolutions:

- 1.2 That the Sahtú region continue the traditional laws of relationship with 2ekwé through a Sahtú-developed 2ekwé plan including a process of self-regulation, driven by community-based monitoring and decisions.
- 3.0 The Sahtú region rejects the current imposition of tags on aboriginal harvesters by ENR under the Wildlife Act Big Game Hunting Regulations for Bluenose West and Bluenose East zekwé in the Sahtú region, as there is no traditional or science-based evidence of a zekwé population level such that conservation measures of this nature are

²³⁸ J. Kochon, HT March 2 (119:8-18), PR 5.02.

²³⁹ Chief W. Kochon, HT March 2 (114:8-9), PR 5.02.

²⁴⁰ D. Codzi, HT March 2 (241:21-25, 242:1-4), PR 5.02.

²⁴¹ W. Bayha, HT March 2 (83:16-23), PR 5.01.

required under the terms of the Sahtú Dene and Métis Comprehensive Land Claim Agreement.²⁴²

ScientifiC Evidence

The SRRB heard evidence from ENR recommending a suggested TAH of 950 2ekwé across the entire BNE 2ekwé herd (and a TAH of 163 BNE 2ekwé in the Sahtú Region). ENR told the SRRB that this TAH would "help slow the decline of the Bluenose East herd and promote its recovery" and would support protection of the herd while allowing for an Aboriginal subsistence harvest, consistent with the SDMCLCA provisions. However, as noted in Hearing Theme 12 – Pekwé Náts'ezé gha K'ínats'eneta (Caribou Harvest Monitoring), identifying appropriate Sahtú Needs Levels and allocations, as required under the SDMCLCA across the entire BRRB that this TAH would "help slow the decline of the Bluenose East herd and promote its recovery" the subsistence harvest, consistent with the SDMCLCA provisions. The subsistence harvest is a subsistence harvest with the SDMCLCA provisions. The subsistence harvest is a subsistence harvest with the SDMCLCA provisions. The subsistence harvest is a subsistence harvest in the subsistence harvest in the

ENR witnesses testified in the hearings that, while limiting Aboriginal harvesting rights was not the only option for achieving conservation goals, it was one of the few options (along with predator control) that could be controlled.²⁴⁶ ENR also proposed a predator control program (discussed in Hearing Theme 9 – ?ekwé Łákídókə [Predators]).

ENR argued, in its final submission to the SRRB, that a TAH does not need to be "the last resort" as an appropriate mechanism for managing harvest. ENR submitted that the requirement that a TAH be imposed only "if necessary" does not require that all other means of conservation have been attempted before the SRRB can set a TAH.²⁵¹

²⁴⁵ SDMCLCA 13.5.

²⁴² SSI and SRRB, supra, footnote 62, 9-10, PR 3.13.

²⁴³ ENR, supra, footnote 104, 4, PR 2.13.

²⁴⁴ Ibid.

²⁴⁶ HT March 1 (41:4-15), PR 5.01

²⁴⁷ Eg. Chief F. Andrew, HT March 2 (193:12-16), PR 5.02.

²⁴⁸ Eg. E. Blondin-Andrew, HT March 1 (255:15-22), PR 5.01. D. Codzi, HT March 1 (105-107), PR 5.01.

²⁴⁹ Eg. J. Lennie, HT March 1 (161:1-3), PR 5.01.

²⁵⁰ ENR, supra, footnote 104, 10, PR 2.13.

²⁵¹ Ibid.

Balance of Evidence

As discussed elsewhere in this Report, the SRRB finds that there is currently a conservation concern for the BNE 2ekwé herd. The question that the SRRB must then determine is the appropriate mechanism or tools to address that conservation concern.

Use of a TAH as a mechanism for harvest management to achieve conservation goals is one tool in the available conservation toolbox. The SDMCLCA is clear: TAH is a tool that should be used "only if required for conservation and to the extent necessary to achieve conservation." ²⁵² The SRRB must consider other conservation tools that can meet the same or better thresholds for achieving conservation goals.

The SRRB heard the strong and unanimous message from Dene witnesses and communities in the Hearing that the use of TAH as a blunt instrument of harvesting management, imposed by "outsiders," is not necessary or appropriate. The SRRB heard evidence of other conservation tools – community conservation plans, predator management, better habitat protection – that have not yet been fully used to achieve conservation goals for BNE 2ekwé and which could achieve the same or better conservation effects than imposing a TAH.

The SRRB finds, based on the evidence in this Hearing, that the traditional Dene structures for managing wildlife continue to be as or more effective in meeting conservation needs (or, as the Déline plan puts it, "letting 2ekwé rest"). 253

The SRRB accepts the alternative tools for a conservation mechanism proposed in the Déline plan. The conservation tools in the Déline plan include an zekwé gha máhsi ts'iniwe (ceremonial harvest target) that is consistent with suggested BNE 2ekwé harvesting levels proposed by ENR and other wildlife management boards. The SRRB acknowledges and appreciates that Déline established a threshold or target for their ceremonial harvest that fits within the recommended sustainable harvest across the entire herd discussed in cross-regional discussions.

The SRRB also finds that the Déline plan provides a better and more comprehensive list of additional conservation tools, compared to the two mechanisms offered in the ENR plan (TAH and predator control). The other conservation tools in the Déline plan (discussed in more detail elsewhere in this Report) include:

- a structure and incentives for harvest of other species as an alternative to 2ekwé harvest Dene béré kats'ınıwe (alternative harvest);
- a detailed identification of and proposals for protection of specific key rededáhk' á gozekwé areas;

²⁵² SDMCLCA 13.5.2.

- proposals for a number of community programs (such as awards, education, and incentives) to assist with conservation efforts;²⁵⁴ and
- proposals for a community restorative justice model for dealing with those who
 contravene the community's plan, with anticipated higher rates of success for compliance
 compared to the criminal justice approach normally used for enforcing harvesting
 restrictions.

The SRRB recognizes that using the conservation tools proposed in the Délįnę plan represents a shift from current assumptions about how to manage Sahtú tįch'ádíı for conservation purposes. It will be important to assess whether the community conservation plan approach is, indeed, meeting proposed conservation goals. The SRRB recognizes that the success of the community conservation plan approach in achieving conservation goals depends on the ability of the other local ?ehdzo Got'įnę (RRCs) to develop their own plans (as discussed in Hearing Theme 4 – Dene hé Métis hé ?edets'ę K'áokerewe [Community Self-Regulation]).

In order to assess the conservation success of the plan, the SRRB will conduct an annual review and assessment of the Déline plan, and any other community conservation plans developed in the Sahtú Region, to determine whether the plans are addressing conservation concerns for BNE rekwé. If the annual review results in evidence that community conservation planning and other conservation tools are not meeting the same conservation goals that would be achieved by a TAH, the SRRB will reconsider whether a TAH is appropriate (and whether a new BNE rekwé Hearing is required, based on any new evidence).

Policy Priorities

Hearing Decision 24

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) accepts Resolution 1.2 of the April 23, 2015 Sahtú Meeting that "the Sahtú region continue the traditional laws of relationship with the 2ekwé through a Sahtú-developed 2ekwé plan including a process of self-regulation, driven by community-based monitoring and decisions." The SRRB accepts the principle that community-based monitoring and decisions are the most effective mechanism for 2ekwé management and conservation in the Sahtú region.

²⁵⁴ See pages 26 to 31 of *Belare wile Gots'é ?ekwé* for a comprehensive list of conservation tools proposed as part of the Dél₁ne plan. DEWG, supra, footnote 3.

Hearing Decision 25

The ?ehdzo Got'ıne Gots'é Nákedı (Sahtú Renewable Resources Board) accepts Délıne's Belare wile Gots'é ?ekwé plan for 2ekwé náts'ezé 2e2a (harvest management), náts'ezé gha k'inats'eneta (harvest monitoring), dícho asíı k'ets'ene ajá t'á náze gha báts'odı (it's gone down so we're going to let it rest), and dene béré kats'ınıwe (alternative harvest), including the plan for sharing náts'ezé data with the SRRB and NWT Environment and Natural Resources as required by the Sahtú Dene and Métis Comprehensive Land Claim Agreement.

Hearing Decision 26

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) finds that Délıne's Belare wile Gots'é ?ekwé plan for ?ekwé náts'ezé ?e?a (harvest management), náts'ezé gha k'inats'eneta (harvest monitoring), dícho asíı k'ets'ene ajá t'á náze gha báts'odı (it's gone down so we're going to let it rest), and dene béré kats'ınıwe (alternative harvest) is consistent with the intent of the cross-regional Action Plan for the Bluenose-East Caribou Herd developed by the Advisory Committee for Cooperation on Wildlife Management (ACCWM) in the Taking Care of Caribou Plan process. The SRRB recommends that the ACCWM revise the Action Plan for the Bluenose-East Caribou Herd to recognize the Délıne approach.

Hearing Decision 27

The ?ehdzo Got'ınę Gots'ę́ Nákedı (Sahtú Renewable Resources Board) will undertake an annual review and assessment of the community 2ekwę́ conservation plans in the Sahtú region, including Délınę's *Belare wile Gots'ę́ ?ekwę́* plan, to determine whether the plans are addressing conservation concerns for Bluenose East 2ekwę́.

Hearing Decision 28

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will assess the need for a Total Allowable Harvest limit if an annual review and assessment of community conservation plans in the Sahtú region demonstrates that conservation concerns for Bluenose East 2ekwé are not being adequately addressed.

Hearing Decision 29

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) recommends that NWT Environment and Natural Resources amend Schedule 5A of the Big Game Hunting Regulations under the Northwest Territories Wildlife Act to add a condition for current zone S/BC/03 that requires harvesting authorization from the local ?ehdzo Got'ınę (Renewable Resources Council), and removes the requirement for a tag for Bluenose East ?ekwé.

Hearing Theme 11 – Yárégo Kanáts' ezé (Smaller Male Caribou Harvest)

Déline's plan proposes a majority yárégo kanáts'ezé (smaller males), with a few tsída (females) kanáts'ezé (harvested) on an exceptional basis for zekwé gha máhsi ts'eniwe (ceremonial harvest). The plan outlines a method of establishing seasons and locations for náts'ezé (harvest) in order to reduce the chances that tsía will offer themselves to harvesters. ENR's plan proposes a 100% male zekwé harvest, with a focus on yárégo (smaller males). The SRRB considered the evidential basis for determining what kinds of zekwé should be harvested.

Dene Náowerá Evidence

Déline witness Walter Bayha provided the most in-depth discussion of evolving historical náts' ezé practices as they relate to the kinds of zekwé harvested, in response to a query from ENR about how the community plans to implement its zeza (Dene laws) for majority yárégo kanáts' ezé. Bayha notes that in the relatively recent past there had been a shift to harvesting in the spring, at a time and location when it was more likely that tsída would be offering themselves. He explained the seasonal and place-based zeza outlined in the Déline plan to encourage yárégo harvest, and emphasized that strong leadership would be required to encourage a shift in community practice, a return to Denecho kə gok'étá náts'ezé (hunting the way our grandparents did).

It makes all the sense in the world to Déline. And this is why I went back to a little history about how we hunted in the past and why we hunted. Our biggest hunt in the past ... was the fall hunt. When you hunt in the fall you get the best prime meat, the fattest caribou. The hides are good – that's when you make clothing. There's going to be a challenge, because all of our fall hunts are not successful the last ten years ... But the fall hunts, we need to bring them back as our major hunt.

And if we do that, it means we're going to harvest bulls only. All of the years that I have hunted on the north shore with my grandfather ... very rarely would people take cows then. All of the harvest are usually bulls, young bulls, some mature bulls, but they are the

ones that the people go after and they're there. That's what you hunt We're looking for practical ways to make sure that the cows are not taken a certain time of the year. We take the bulls.

One of the things that Déline has done, and there's many of our people here, we're not hunting in Hottah Lake anymore, not for two years. If you don't hunt in Hottah Lake for two years, that means you're not going to be shooting very many cows, because the hunts in Hottah Lake are in March, April. So that's the way that the Dene people have done things in the past.

They don't try to teach people, you can only take this much cows and that much [bulls], because it's not very practical. You're going to have to be with with every hunting group that goes out of Déline. We can't manage it like that. We have to manage by where we hunt.

So that means that the leadership, they're going to say, we're going to hunt in the fall time in this area and they're going to support that. It's Délne's leadership that's going to work. They're the lead on saying, well, this is what we're going to do. And I think that's what's going to work, not me running around say[ing], enough shooting cows. Get [Chief] Leonard [Kenny] to say, Well, here, this is what we're going to hunt this year. We're going to hunt bulls in the fall time. That's our major hunt. And I think that would work a lot better in the long-term and probably be more acceptable. 255

The Dél₁ne plan provides an explanation of the need for a limited tsída gha máhsı ts'ınıwe (ceremonial harvest).

The practice of <code>?ekwé</code> gha máhsı ts'<code>iniwe</code> (ceremonial harvest) discussed in this plan reflects the Déline Got'ine understanding that when <code>?ekwé</code> come to us they do it of their own free will. It is one way we show respect to <code>?ekwé</code> and play a part in ensuring that the herd can replenish itself. This type of harvest relies on having a pregnant <code>?ekwé</code> with a fetus that is too small for the elders to eat. It is then left in its sack and buried under a tree, so that the spirit of the fetus will return to replenish the herd. The harvester says the following phrase two times: "<code>?edets'é</code>nanede hádé máhsı gha – If only you would go back to your herd, then thank you."

Because tsída (female caribou) play this critical role in thanking the ancestors, it is necessary to harvest a limited number of tsída. However, our overall conservation approach involves harvesting with a focus on yárégo (younger bulls).²⁵⁶

²⁵⁵ HT March 2 (94-98), PR 5.02.

²⁵⁶ DEWG, supra, footnote 3, 8-9.

The compilation of Sahtú information from the ACCWM's "We have been living with the caribou all our lives..." community engagement report provides additional Dene náoweré evidence. Concerns were expressed about the impact on the health of the herd of the former sport practice of harvesting bedzio (bigger bulls). According to the report, "It was stressed that keeping a balance of bulls and cows in the population was very important. It was also emphasized that bulls play an important role as the leaders of the herd and it is important to keep enough strong bulls around." A Fort Good Hope witness quoted in the report supported a limited tsída harvest: "Depends on fat and time of year and cultural interest in harvesting cows to be able to eat the fetus for example." ²⁵⁸

The WRRB Traditional Knowledge Technical Session summary confirmed that "all participants agreed there are important rituals associated with eating particular parts of both male and female caribou."²⁵⁹

Scientific Evidence

Several questions have been raised about the potential impact of náts'ezé made up predominantly of bedzio (older males) and yárégo (young male) harvest on the recovery and long-term productivity of BNE 2ekwé. Given the composition of the herd in 2015, 950 bull náts'ezé recommended by ENR would be roughly 10% of the males in the population, a large proportion of any specific age/sex class. Several studies have been conducted on the conservation of herds where selective harvesting occurs due to trophy harvesting or similar practices.

Trophy harvesting of mature males is usually conducted on species such as Dall's sheep and mountain goats, where only males are taken from the population. Male-only harvests shift the sex ratios of the herd towards females. Harvesting yárégo (young males) will shift the age of the remaining males higher and it assumes that there will be little difference in the reproductive rate of the herd. Bedzio tend to mate when tsída are at their most receptive (i.e., peak estrous or fertility) while yárégo attempt to mate earlier and later in the rut.²⁶⁰

Evidence from studies on selective harvesting of populations show that the removal of a significant proportion of any sex or age class can significantly impact the ecological, social and genetic structure of a population.²⁶¹ The current view adopted by ENR is that the removal of yarégo of the BNE will have little impact on the viability of the herd and will help retain the

²⁵⁷ ACCWM, supra, footnote 47, 24, PR 3,22.

²⁵⁸ ACCWM, supra, footnote 10, 25.

²⁵⁹ WRRB, supra, footnote 172, 7.

²⁶⁰ E.M. Tennenhouse, R.B. Weladji, Ø. Holand and M. Nieminen. 2012. Timing of reproductive effort differs between young and old dominant male reindeer. *Annales Zoologici Fennici* 49: 152-160. As cited in C.R. Macdonald. 2016. *SRRB Final Technical Review - Science Advisor Colin Macdonald*, PR 3.17.

²⁶¹ Macdonald, supra, footnote 77, 2, 4-5, PR 3.17.

productive adult tsída, while allowing continued 2ekwé kanáts'ezé. This view needs to be supported by field studies, and the viability of the herds must be monitored.

Balance of Evidence

Dene náowerá and science concur that a certain balance of bedzio and tsída is required for zekwé to remain healthy, although there remain questions in the scientific world about the specific balance needed and the impact of yárégo kanáts'ezé as encouraged by the ENR plan.

Since BNE ?ekwé are in the orange zone per the discussion in Hearing Theme 2 – ?ekwé K'éts'ıne gha Daradé? (Population Trend), there is still an opportunity to help ?ekwé recover by reducing the number of tsída harvested, while accommodating a limited tsída gha máhsı ts'enıwe that is part of ?ekwé hé Dene ts'ılı (sustaining relationships with caribou) and also a practice of respect for the elders.

The SRRB accepts the adaptive management principle that supports monitoring the effects of tsída gha máhsı ts'enıwe on the population and zelehé zeghálats'eda (working together) with Zehdzo Got'ınę to adjust the approach if BNE zekwé decline to the red zone (low population threshold) as defined in the *Taking Care of Caribou* plan.

Policy Priorities

Hearing Decision 30

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) finds that, based on the evidence, a 0% tsída kanáts'ezé (female caribou harvest) is not appropriate at this time, but that a majority yárégo kanáts'ezé (smaller male caribou harvest) is important in order to address conservation needs. The SRRB therefore accepts the Délınę proposal for a majority yárégo kanáts'ezé, and requires Délınę to adapt its Belare wíle Gots'ę ?ekwę plan to allow for a maximum of 20% tsída kanáts'ezé.

Hearing Decision 31

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) requests that NWT Environment and Natural Resources amend Schedule A of the Big Game Hunting Regulations under the Wildlife Act to remove the requirement for a bull only harvest in current zone S/BC/03 and replace this with a condition requiring authorization from the local ?ehdzo Got'ınę (Renewable Resources Council).

Hearing Theme 12 – ?ekwé Náts'ezé gha K'ínats'eneta (Caribou Harvest Monitoring)

A key question that the SRRB and Parties explored in the Hearing was how to monitor BNE 2ekwé kanáts' ezé to understand the health of the herd and the rate of harvest.

The Dél₁ne plan included provisions for how Dél₁ne proposes to monitor náts' ezé numbers, as well as sex and location of 2ekwé harvested. Dél₁ne proposed an approach that implements the compulsory accountability mechanism outlined in the SDMCLCA which requires that "Renewable Resources Councils shall participate in the collection and provision, to government and the Board, of local harvesting data and other locally available data respecting wildlife and wildlife habitat."

The SRRB evaluated evidence about traditional and social science-based approaches to harvest monitoring, to determine steps required to appropriately implement this land claim requirement, including provision of support to communities in their 2ekwé náts'ezé gha k'ínats'eneta initiatives.

Dene Náowerá Evidence

As noted with respect to Hearing Theme 3 – ?ekwé ?edets'é K'áokerewe (Caribou Self-Regulation) in this Report, Dene witnesses in the Hearings in Dél₁ne and Behchokò reminded the SRRB that the Dene have their own 2e2a (laws) that guide relationships with 2ekwé. As Colville witness Joseph Kochon told the SRRB,

Whatever plan we develop is what our ancestors have done. We've always been here, for a long time. We have a life. We have a way of monitoring our caribou. We have a way of taking care of it. Those principles and laws are instilled in us. It's right into our hearts and into our souls. Every Dene person in this room, their ancestors have given them that knowledge.²⁶⁴

Both Déline and Colville testified that they have methods in place for 2ekwé náts'ezé gha k'ínats'eneta. Colville's presentation at the Hearing provided a detailed picture of the approach that they practise:

Before harvesters depart, they inform the RRC of their intended destinations, and when they return from the land, they report to the Colville RRC the location they travelled to, the number of caribou they observed, the number of caribou harvested for subsistence,

²⁶² DEWG, supra, 28-29, 42-45, PR 2.03.

²⁶³ SDMCLCA 13.9.6.

²⁶⁴ HT March 2 (301:13-22), PR 5.02

and any indication of caribou tracks to estimate the number of caribou not observed directly. ²⁶⁵

The historical approach to 2ekwé náts'ezé gha k'ínats'eneta in Dél₁ne is documented in a review done in 2013 for the SRRB as part of the Sahtú Harvest Study (SHS). ²⁶⁶ In the review, Dél₁ne community member Walter Bayha described historical approaches to 2ekwé náts'ezé gha k'ínats'eneta, recorded as follows:

Walter Bayha remembers that when he was a child, his grandfathers regularly got together to talk about what they were harvesting, where they were harvesting, and how much they were getting; "In my grandfather's time that information was gold" (pers. comm. 2013). As a [former] Renewable Resource Officer, Walter developed a program around the General Hunting Licence (GHL) that documented harvesters' information.

The licensing system expired at certain dates, so it had to be validated and you'd get a new sticker on your licence every year. That's the time we'd collect whatever the hunters would tell us. It was an opportunity – we'd sit like this and talk about how well they did and it was like what my grandfathers would do and the hunters liked it – they didn't mind me writing it down, putting a little sticker on it. People had a great time. If you can do it in a way that the people will appreciate it, it's not a problem. I really appreciated them telling me, and they appreciated me telling them what other hunters told me. Then eventually they got together and talked about what information had been shared. ... (Walter Bayha, pers. comm. 2013).

It was stated that the program was successful because it built on something that was already a Dene tradition – talking about harvesting and sharing harvesting information (Walter Bayha, pers. comm. 2013). ²⁶⁷

Scientific Evidence

Náts'ezé studies have been a standard component of contemporary land claim agreements, establishing the baseline data required for zekwé náts'ezé zeza (harvest management) decision-making when conservation measures are required. These studies varied in duration, but were designed according to the same basic model, involving a monthly one-on-one interview with known zehdzo got'ıne (harvesters) with a focus on compiling harvest numbers – a standard social science approach.

²⁶⁵ Colville. BNE Hearing Presentation, March 2, 2016, 25, PR 4.01.

²⁶⁶ Independent consultant Janet Winbourne completed the review as an internal SRRB document.

²⁶⁷ J. Winbourne. 2013 (July 23). *Review and Assessment of the Sahtú Settlement Harvest Study, 1998-2005*, internal report for the SRRB.

In a 1996 article, Doug Urquhart noted that there was a major weakness in existing systems of data collection supporting Porcupine 2ekwé herd náts'ezé management:

Harvest information is one of the most deceptive components of wildlife management because, in theory, it should be readily obtainable but, in practice, it is rarely satisfactory. Also, for some reason, it is not considered as a valid field of serious research but rather as a nagging administrative problem to be addressed through trial and error. Thus, although many methods have been tried, apparently no one has rigorously examined their effectiveness. There is, in fact, a chronic need for serious harvest data research since, in the co-management world, harvest control is a real tool but a very tricky one to operate. ²⁶⁸

The SRRB's own experience echoes the concerns noted by Urquhart. In order to address challenges in the process of completing the Sahtú Harvest Study and address concerns about testing the process for harvest data research, the SRRB commissioned Janet Winbourne to conduct a review and assessment of the SHS. Winbourne's report includes case studies of four harvest data collection programs in other regions. Her report recommends an adaptive approach to harvest data collection.

Following up on the 2013 review and assessment, in 2015, Winbourne facilitated a focus group with Dél₁ne 2ehdzo got' 1, ne to review their own data in the SHS. This was the first in a series planned with the five participating communities. Community participants noted that harvest levels appeared to be higher for most species in years 1 and 2 of the SHS (1999 and 2000). In an internal report Winbourne prepared for the Dél₁ne ?ehdzo Got' 1, ne following the focus group, she commented on this phenomenon: "Harvesters in the focus group suggested it is possible that the high level of study promotion in the early stages influenced peoples' involvement and interest in reporting their harvests. It is also possible that by Year 3, participants were already starting to experience interview fatigue and were less likely to report their harvests." ²⁶⁹

In comparison, the Northern Tutchone of the Yukon Territory provide an instructive example supporting adaptive harvest monitoring approaches. The SRRB visited the annual Northern Tutchone May Gathering in 2013, where community harvest survey coordinators and a "trusted biologist" reported to Aboriginal participants on the confidential survey results as a basis for collective decision-making. The survey had been running for many years as a door-to-door campaign. The Northern Tutchone decided to adopt a more collective and qualitative approach to harvest monitoring, since participation in the structured door-to-door survey was declining.

²⁶⁸ Urquhart, supra, footnote 150, 269.

²⁶⁹ J. Winbourne. 2016 (March 1). A Focus Group Review of the Déline Harvest Study Results, 1999-2005. SRRB, 11.

Coherent with this example, during the 2015 Déline harvest study focus group, Bayha advocated a traditional, collective approach moving forward:

We have a lot of ideas on how we could do this ... the new government wants its own people to have that information, because somebody has to make a decision about how we do things ... I would love for people to come here, everyone that went hunting, and talk to each other about where they hunted and what they hunted and have fun with the kids, just like the May Gathering in the Yukon. ... The information you get when all the people are together, we get the information and we decide what happens on our lands. Now, everybody goes everywhere and they don't talk to anyone. But in that gathering, when we're here, then we talk – "You don't mind if I go here, this year? Or where, or how much we harvest?" ²⁷⁰

Balance of Evidence

The SRRB recognizes that social science approaches to data collection are adopted because they are a systematic method for providing numbers that can be used in scientific models. However, experiences with land claim-mandated náts'ezé studies indicate that there may be problems with data quality, interview fatigue, and scope in providing results that can be used in collaborative decision-making.

This is reflected in the SRRB's own experience with the SHS. The SRRB has found that the tasks of developing and conducting quality surveys, managing data, statistical analysis and modelling require specialised expertise not available within the Sahtú Region or even the NWT, and entail considerable expense. Doing the necessary analysis has taken years – by which time the data may not be relevant for current data requirements. Moreover, in part because highly trained outsiders have played such a fundamental role in all phases of harvest studies, and in part because study results may be lacking in context, additional collaborative effort with communities is required to validate study results and explore their applicability for decision-making.

Déline and Colville have provided evidence in this Hearing, and in other recent engagement with the SRRB, that traditional Dene redets'é k'áots'erewe (governance) includes a rigorous system of rekwé náts'ezé gha k'ínats'eneta that is integrated with monitoring of rekwé dágóht'e (status and trends), systems for ensuring compliance with community rera and practices of hegerichá (respect), and systems of knowledge transmission. Both Déline and Colville have explicitly indicated that these systems may be more cost-effective than standard social science methods, and have been well supported within the communities.

The SRRB is aware of recent innovations in 2ekwé náts'ezé gha k'ínats'eneta using new technologies in Nunavut and elsewhere. More research is required to fully learn the lessons of

²⁷⁰ Winbourne, ibid, 11.

previous harvest data collection experiences, and define and pilot comprehensive and costeffective approaches that will provide results that can be considered valid by all co-management partners for use in conservation decision-making.

Research Priority

Hearing Decision 32

The ?ehdzo Got'ınę Gots'ę́ Nákedı (Sahtú Renewable Resources Board) will work collaboratively with ?ehdzo Got'ınę (Sahtú Renewable Resources Councils) to develop an adaptive approach to ?ekwę́ náts'ezé gha k'ínats'eneta (caribou harvest monitoring) as a basis for conservation planning.

Policy Priorities

Hearing Decision 33

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) accepts Délıne's Belare wile Gots'é ?ekwé plan for Bluenose East ?ekwé náts'ezé gha k'ínats'eneta (caribou harvest monitoring).

Hearing Decision 34

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will assess whether the 2ekwę náts'eze gha k'ínats'eneta (caribou harvest monitoring) provisions in Délıne's Belare wile Gots'ę ?ekwę plan are meeting the conservation goals of the plan as part of the SRRB's annual review of plan implementation.

Hearing Theme 13 – Náts'ezé Dáhk' (Harvest Zones)

The current *Big Game Hunting Regulations*²⁷¹ (*Regulations*) under the *Wildlife Act*²⁷² establish zones for the purpose of managing tịch ádíı kanáts ezé (wildlife harvesting).

The SRRB heard evidence that the zones in the *Regulations* do not correspond with Dene and Métis náts'ezé dáhk'á (specific harvesting areas) or néné (homelands, territories), community-governed and place-based harvesting and naming practices, or with internal land claim district

²⁷¹ Big Game Hunting Regulations, NWT Reg 019-92, as amended.

²⁷² Wildlife Act, SNWT 2014, c 31.

boundaries within the Sahtú Region. The SRRB considered the changes that may be necessary to these zones and to the *Regulations* as part of its deliberations.

The zones are currently named according to the following geographic, species and habitat areas:

- land claim regions (the Sahtú Region is the "S" zone)
- Sahtú tịch'ádíı (wildlife) species (2ekwé [barren-ground caribou] are "BC")
- 2ededáhk' á (habitat) for specific herds (in the Sahtú, "01" is general BNW 2ededáhk' á gozekwé (habitat of caribou), "02" is general shúhta gozepé 2ededáhk' á (habitat of northern mountain caribou) and "03" is general BNE 2ededáhk' á gozekwé.

The BNE 2ekwé zone in the Sahtú Region in the *Regulations* is called zone S/BC/03. While traditional náts'ezé dáhk' á (harvesting areas) do not correspond with the area defined by this zone, the boundaries of the S/BC/03 zone do correspond roughly with the known 2ededáhk' á (habitat) of BNE within the Sahtú Region.

In 2015, the ENR Minister exercised emergency powers under the *Wildlife Act*²⁷³ to impose harvesting restrictions on BNE 2ekwé in zone S/BC/03. These restrictions require the use of tags and a male-only harvest.

The ENR Minister amended the *Regulations* on an emergency basis to reflect these harvesting restrictions,²⁷⁴ although the SRRB had not yet made a determination about whether náts'ezé restrictions were required for conservation reasons, and although the SRRB had not yet completed the process required under the SDMCLCA for imposing any harvesting restrictions.²⁷⁵ The 2016 BNE ?ekwé Hearing provided the SRRB with the opportunity to review this amendment to the *Regulations*.

Dene Náowerá Evidence

Délįnę witness Walter Bayha and others gave evidence at the Hearing that knowledge of rededáhk' gozekwę is based on family histories of land use, and the geography of this knowledge is represented by placenames. Délįnę Got'įnę extended families or clans are referred to by the nę́nę́where they traditionally spent most of their time. There are also specific areas which are critical rededáhk' gozekwę́ at certain times of year, where families would gather from different communities and regions for náts' ezé.

The Dél₁ne plan does not include a map of these areas, but it does refer to specific gathering areas represented by placenames referring to significant landscape features (penninsulas, rivers,

²⁷⁴ Part 5A of the Schedule to the *Big Game Hunting Regulations*.

²⁷³ Wildlife Act, section 99.

²⁷⁵ Section 13.5.2 of the SDMCLCA requires that, "Unless a total allowable harvest is established, the quantity of harvest by participants may not be limited."

²⁷⁶ Eg. W. Bayha, HT March 2 (53:25, 54:1-6), PR 5.02.

lakes) that are considered critical for both Dene and BNE ?ekwé, including ?ehdaĮla (Caribou Point), Tehkaıcho Dó (Johnny Hoe River), and Įts'éré Túé (Hottah Lake, which is in the Wek'èezhìı Region and thus in the jurisdiction of the WRRB).²⁷⁷

The SRRB heard evidence from Dene and Métis people from different communities and across the different modern land claim areas. They shared knowledge and náts'ezé history related to rededáhk'á gozekwé within the area now defined as Zone S/BC/03 under the current *Regulations*.

For instance, the Dél₁ne plan does not consider the ?arakə Túé (Horton Lake) area as BNE ?ededáhk'é. However, Colville concurred with ENR's evidence that BNE ?ekwé may overlap with the BNW herd in this area, ²⁷⁸ and Colville gave considerable evidence that ?arakə Túé is "a primary harvesting area" used by Colville. ²⁷⁹

The Colville RRC's supplementary submission also provided insights into the biocultural significance of rededáhk'á gozekwé for Dene:

Annually, each September for the past twenty six years (since 1990), people from our community have travelled to ?arakə Túé to teach our youth how to harvest caribou according to traditional Dela Got'ınę laws, estimate the caribou population, harvest caribou to determine the health of the herd, check the conditions of the land (vegetation, water, and insects), monitor the predator population and monitor other animals that use the same land as the caribou, such as the muskox. This is a continuation of the ancient practice of our people travelling to this region to manage and hunt caribou. ²⁸⁰

Evidence was presented in the Hearing that there is active discussion between Colville and Dél₁ne with respect to the determination of néné jurisdiction in the ?arakə Túé area of the Dél₁ne District, and that a formal agreement between Dél₁ne and Colville has not yet been reached on this important issue.²⁸¹

The Dél₁ne plan acknowledged that work still needs to be done to identify important zededáhk'é gozekwé. ²⁸² The history of use of BNE zededáhk'é gozekwé and areas of seasonal overlap between BNE and BNW by other communities, including Fort Good Hope, Tulít'a, and Norman Wells, requires further research as part of community conservation planning. The Dene Mapping

²⁷⁷ DEWG, supra, footnote 3, 21-24.

²⁷⁸ ENR. 2016 (March 1). "Barren-ground Caribou - Movement Animations," in "Status and Proposed Management 2016-2019 for Bluenose-East Caribou Herd GNWT, Environment & Natural Resources," slide presentation, http://www.caslys.ca/SRRB CaribouAnimations/main.html, PR 2.12.

²⁷⁹ Colville, supra, footnote 27, 11-12, PR 4.02. See also Colville RRC. 2016 (July 19). "Supplementary Submission - Exemption for Arake Tue." PR 4.04.

²⁸⁰ Colville, supra, footnote 26, 2.

²⁸¹ Ibid.

²⁸² DEWG, supra, footnote 3, 20.

Project sponsored by the Dene Nation in the 1970s,²⁸³ the Sahtú Land Use Planning Board's recent Land Use mapping project, and the SRRB's Sahtú Harvest Study, are three important datasets that would be rendered more meaningful and useful for planning through structured community-collaborative research.

Scientific Evidence

ENR did not provide scientific evidence to justify the approach taken regarding the definition of harvest zones. The SRRB is aware that the current zoning process reflects existing ENR practice based on known data regarding the range of the BNE 2ekwé.

The annual range of BNE 2ekwé covers roughly 300,000 km² (see Figure 2, page 13) and includes the calving area to the west of Kugluktuk in Nunavut, summering and rutting areas north and east of Great Bear Lake, and wintering ground to the south of the lake. Within these areas are specific sites that 2ekwé return to annually. Parako Túé, Pehdaįla and Pits'ere Túé have been defined as Important Wildlife Areas by ENR based on discussions with Sahtú communities. 285

As the Délįnę plan pointed out, two of the 2ededáhk' á go2ekwé areas that are within the Sahtú Region are identified as Conservation Zones in the regional Sahtú Land Use Plan. ²⁸⁶ Although there is movement of a small number of BNE 2ekwé tsída (females) between herds in the Sahtú ²⁸⁷ large scale changes in the location of 2ekwé né golek' á (calving grounds) may also occur when the herd is small. ²⁸⁸

Balance of Evidence

The SRRB finds that the current approach to identifying and naming zones under the *Regulations* is problematic for several reasons:

- 1. The zone naming system and structure in the *Regulations* is difficult for community members to understand;
- 2. The current zone structure creates confusion about náts'ezé rights of different communities where land claim district boundaries do not align with náts'ezé zones; and

²⁸³ For more information on the Dene Mapping Project, see http://www.srrb.nt.ca/index.php?option=com_k2&view=item&id=435: Dene-mapping-project- Dene-metis-mapping-project&Itemid=985

²⁸⁴ ENR, supra, footnote 278, PR 2.12.

²⁸⁵ J.M. Wilson and C. A. Haas. 2012. Important wildlife areas in the western Northwest Territories. Manuscript Report No. 221. *Environment and Natural Resources*. Yellowknife.

²⁸⁶ Sahtú Land Use Planning Board. 2013 (April 29). Sahtú Land Use Plan.

²⁸⁷ Macdonald, supra, footnote 41.

²⁸⁸ ACCWM, supra, footnote 10.

3. The zone structure does not reflect the placenames used by the Dene and Métis to identify and manage specific harvesting areas or areas important to caribou.

A review of the final version of the Dél₁ne plan in conjunction with the existing zones under the Wildlife Act shows that the community conservation plan proposed by Dél₁ne would apply only to the current S/BC/03 zone, which is the general habitat of BNE 2ekwé. This current zone and restrictions on BNE náts'ezé does not apply in the 2araka Túé area of S/BC/01, which is where the Dela Got'₁ne (Colville and Fort Good Hope communities) harvest primarily BNW 2ekwé.

The SRRB recognizes that there is a process in place whereby Déline and Colville are discussing jurisdiction in the Paraka Túe area of the Déline District. The current zone structure (which does not incude Paraka Túe in the S/BC/03 BNE zone) does not affect Colville harvesting in that area. Paraka Túe zoning issues can be part of a broader discussion regarding modifying the existing zone system to deal with overlap issues.

The SRRB accepts that evidence about Dene practices of traditional conservation areas and shared rededáhk' gorekwé areas should inform decisions about náts' ezé dáhk' f. The SRRB also accepts that Dene names should be used for identifying special rededáhk' gorekwé and náts' ezé dáhk' f, and that the existing zone system should be modified to both reflect Dene names and possibly include sub-zones for the purpose of making better management decisions. Further research is needed to establish the basis for community, regional and cross-regional decision-making about zoning for rekwé conservation purposes.

Research Priority

Hearing Decision 35

The ?ehdzo Got'ınę Gots'ę Nákedı (Sahtú Renewable Resources Board) will prioritize community-collaborative research working with and building on existing Dene náoweró map datasets and stories to understand the social-ecological history of Bluenose East zededáhk'ó gozekwę (caribou habitat) within and beyond the boundaries of the Sahtú Region as a basis for community conservation planning.

Policy Priority

Hearing Decision 36

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) will work with NWT Environment and Natural Resources and co-management partners in the Sahtú and Wek'èezhìı Regions to address concerns regarding the current Big Game Hunting Regulations zones for caribou, including overlap issues, Dene naming issues, the potential need for subzones and any necessary changes to zone definitions in the Regulations.

Hearing Theme 14 – ?ekwé ?ea Hegerichá gha (Enforcement)

One aspect of a successful conservation plan is the ability to ensure that it is hegerichá (respected). Intended to deal with situations where someone does not respect a community consensus regarding náts' ezé 2e2a (harvesting policies) such as preventing wastage or 2ekwé hegerichá (treating caribou with respect), the Déline plan included provisions for a community 2edets'é k'áots' erewe (self-regulation) process for enforcement 289 and restorative justice 290. The SRRB also heard evidence and concerns from ENR about ensuring that effective mechanisms will exist to deal with situations where individuals do not comply with the community's own restorative justice program. ENR requested information from Déline about how this restorative justice approach would work and Déline responded:

Enforcement by ENR officers will be a stage in the restorative justice approach to enforcing the náts'ezé policy laid out in the plan. At the first stage, instances of non-compliance will be handled at the level of the individual family – for example, requesting that no more náts'ezé [(harvesting)] occurs in a particular area. The second stage of the process will be a sentencing circle, relying on elders and other figures of authority in the community to request compliance. A third stage or instance of non-compliance would involve the ENR officer and territorial legislation.²⁹¹

In response to an additional Information Request from the SRRB about how the proposed Dél₁nę restorative justice process could work in conjunction with existing options that allow for alternative justice approaches under the *Wildlife Act*, ²⁹² the Dél₁nę ?ehdzo Got'₁nę indicated that they are "willing to work with the GNWT to explore whether an alternative enforcement measures program authorized by the GNWT Minister of Justice would be feasible or desirable from the standpoint of the Plan's ?edets'é k'áots'erewe approach."²⁹³

In its final submissions, ENR indicated that "ENR recognizes the reservations expressed by Sahtú hearing participants about harvest quotas and looks forward to working with Dél_ine and other Sahtú communities on flexible harvest management that achieves overall conservation goals while respecting community concerns and consistency with traditional ways."²⁹⁴

²⁸⁹ DEWG, supra, footnote 3, 28-29, 42-45.

²⁹⁰ DEWG, ibid, 8.

²⁹¹ DEWG, "Déline ?ehdzo Got'ine Responses – ENR BNE Information Requests Round 2," 2, PR 2.8.

²⁹² Section 167 of the *Wildlife Act* sets out an "Alternative Measures" option for enforcement under certain conditions.

²⁹³ DEWG, Déline ?ehdzo Got'ine Responses - SRRB Questions. 2, PR 2.10.

²⁹⁴ ENR, supra, footnote 104, 8, PR 2.12.

Dene Náowerá Evidence

The SRRB heard evidence in the Hearing about how the Dene historically dealt with situations where someone did not follow the community's traditional 2e2a (laws). Délįnę witness Walter Bayha explained, "When I was growing up, if I did something our elders didn't like, or the community [didn't like], they asked the family to deal with it." Colville witness Joseph Kochon also noted that, traditionally, "whenever there's problems, then we deal with it directly. We don't punish people. We just talk to them and ensure that whatever problems happen doesn't happen again." Phase problems happen doesn't happen again."

As mentioned on the previous page, the SRRB heard evidence from Déline about a proposed restorative justice program referred to as "Dícho asíı k'ets'ene ajá t'á náze gha báts'odı" (it's gone down, so we're going to let it rest), or the Déline Code. The Déline Code expects the Pehdzo Got'ine will follow the traditional Dene approach to ensuring that people follow the plan. ²⁹⁷

At the Hearing, Bayha reiterated: "the family has that responsibility and if the family has issues with it, and they can't move on it, then it goes to the RRC. The RRCs would pick somebody. They might pick a leader or two people, or three people, and they're going to deal with these issues, whatever a harvester is doing if not complying with this plan." ²⁹⁸

The SRRB also heard unanimous evidence from all the Sahtú ?ehdzo Got' ¡ne that an externally imposed 2ekwé 2e2a heger¡chá gha process is less likely to succeed in ensuring 2ehdzo got' ¡ne (harvesters) comply with náts' ezé targets than a community-driven process for enforcement. The Dél¡ne plan defines the Dene term godedí as "wildlife officers enforce harvest rules and make people feel like criminals and poachers" – precisely what that the community aims to prevent in developing the plan. Bayha affirmed, "We're not going to make criminals out of our people. That's what we try to stay away from." He further explained, "From our history in Dél¡ne, the courts haven't helped us very much. Laws don't help us very much... And the present laws that we have do not comply with the way the Dene people have always been doing things." Theme 4 – Dene hé Métis hé ?edets' É K'áokerewe (Community Self-Regulation) in this Report provides additional Dene náowerá evidence that externally imposed enforcement systems are ineffective.

²⁹⁵ HT March 2 (46:24 – 47:2), PR 5.02.

²⁹⁶ HT March 2 (310:4-7), PR 5.02.

²⁹⁷ DEWG, supra, footnote 3, 49-50.

²⁹⁸HT March 2 (47:7-14), PR 5.02

²⁹⁹ WRRB HT April 8, 2016, WRRB BNE PR 168.

³⁰⁰HT March 2 (48:8-17), PR 5.02.

Science Evidence

The SRRB is aware that alternative justice models, including sentencing circles, are being used in much of the country, mostly at the provincial/territorial court level and in cases involving Aboriginal people and situations which are not serious Criminal Code offences.³⁰¹

This is a response, in part, to the directive of the Supreme Court in *R. v. Gladue* that restorative justice and alternative sentencing programs should be used wherever it is reasonable to do so in dealing with Aboriginal people:

It is unnecessary to engage here in an extensive discussion of the relatively recent evolution of innovative sentencing practices, such as healing and sentencing circles, and Aboriginal community council projects, which are available especially to Aboriginal offenders. What is important to note is that the different conceptions of sentencing held by many Aboriginal people share a common underlying principle: that is, the importance of community-based sanctions... [T]he point is that one of the unique circumstances of Aboriginal offenders is that community-based sanctions coincide with the Aboriginal concept of sentencing and the needs of Aboriginal people and communities... Where these sanctions are reasonable in the circumstances, they should be implemented. In all instances, it is appropriate to attempt to craft the sentencing process and the sanctions imposed in accordance with the Aboriginal perspective. 302

The SRRB is also aware that the recently released final report of the national Truth and Reconciliation Commission called for the implementation of community-based sanctions as a more effective alternative for dealing with justice issues in Aboriginal communities:

31. We call upon the federal, provincial, and territorial governments to provide sufficient and stable funding to implement and evaluate community sanctions that will provide realistic alternatives to imprisonment for Aboriginal offenders and respond to the underlying causes of offending.³⁰³

Balance of Evidence

The SRRB accepts the evidence that the best current option for achieving success in community adherence to a BNE 2ekwé conservation plan is if compliance with that plan is monitored and enforced by the community itself.

The Déline plan proposed the Déline Code (Code), an approach to community redets'é k'áots'erewe that includes rekwé rera hegerichá gha, through the use of traditional solutions for

³⁰¹ See for instance Justice Canada's summary at http://www.justice.gc.ca/eng/csj-sjc/ccs-ajc/04.html ³⁰² *R. v. Gladue*, 1999. 1 S.C.R. 688 at para. 74.

³⁰³ Truth and Reconciliation Commission of Canada, *Calls to Action*, p. 3 (available at http://www.trc.ca/websites/trcinstitution/File/2015/Findings/Calls_to_Action_English2.pdf).

situations where individuals do not comply with 2e2a and norms decided upon by the rest of the community. Déline's response to Information Requests and its final submission made it clear that Déline sees the Déline plan as a living document and process, one which will involve changes in order to keep strengthening the capacity of the plan to achieve conservation and cultural protection goals.

Déline's oral evidence and submissions also made it clear that Déline is not entirely certain about how the Code's zekwé zeza hegerichá gha provisions could interact with the alternative justice options under the *Wildlife Act*. Both Déline and ENR expressed willingness to work together to examine how and whether enforcement under the Déline plan can occur in conjunction with alternatives under the *Wildlife Act*.

The SRRB finds that there is convergence between Déline's proposed restorative justice approach (including the use of sentencing circles) and existing alternatives available under the *Wildlife Act* that would allow the ENR to enforce náts'ezé restrictions if the Déline community enforcement process is ultimately unsuccessful in a given instance.

Déline and the Government of the NWT will need to work together to ensure the success of the proposed restorative justice approach. Discussions will be needed about the specifics of the process by which the Déline RRC can turn matters over to the ENR for enforcement should the sentencing circle process not resolve situations of non-compliance. Both parties will need to undertake training and skill building in the circle process and determine how to customize the process to fit local Déline resources and culture.

The SRRB recognizes that the implementation of the Déline approach to restorative justice must be highly flexible, because the circle process will evolve over time based on the community's knowledge and experience.

The SRRB will review whether and how successful the Déline zekwé zeza hegerichá gha approach is, when the SRRB annually reviews progress on meeting the Déline plan's conservation goals.

Policy Priorities

Hearing Decision 37

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) accepts Délıne's Belare wile Gots'é ?ekwé plan for ?ekwé ?e?a hegerıchá gha (enforcement of) Bluenose East ?ekwé kanáts'ezé (caribou harvesting).

Hearing Decision 38

Déline and the Government of the NWT are requested to immediately begin a process for determining whether and how the restorative justice code for zekwé zeza hegerichá gha gózo (enforcement) in Déline's Belare wíle Gots'é ?ekwé plan will be recognized as an "Alternative Measures" option under the Wildlife Act.

Hearing Decision 39

The ?ehdzo Got'ınę Gots'é Nákedı (Sahtú Renewable Resources Board) will assess whether the restorative justice code for 2ekwé 2e2a hegerıchá gha gó20 (enforcement) in Déline's Belare wile Gots'é ?ekwé plan are meeting the conservation goals of the plan as part of the SRRB's annual review of plan implementation.

Conclusion

Concerns about tịch'ádíı (wildlife) and Dene and Métis ways of life on the land were of utmost importance to the leaders who negotiated the SDMCLCA more than two decades ago. At the core of the SDMCLCA, therefore, is a system that guarantees Sahtú communities' náts'ezé (harvesting) rights and their right to participate in any significant decisions about tịch'ádíı conservation and náts'ezé. The requirement for a public hearing is one of the safeguards to ensure that no group of people can make decisions on their own. At the same time, it is a way of bringing together as much evidence for making decisions as possible, including both Dene náoweré (traditional knowledge) and science.

The BNE ?ekwé (Caribou) Hearing is the second event of its kind in the Sahtú Region. The first, the BNW ?ekwé Hearing, took place in Fort Good Hope in 2007. Since that time, a lot has happened both within the region, at the territorial level, nationally, and even internationally, that has informed the SRRB's approach to the present Hearing. Déline has achieved self-government, and other Sahtú communities are working toward their own self-government agreements. The Government of the NWT has enacted a new *Wildlife Act* that properly recognizes land claim agreements and aboriginal harvesting rights. At the federal level, the courts have made significant strides in recognizing responsibilities owed to Aboriginal peoples not only to consult, but also to accommodate their input in decisions affecting their traditional lands, wildlife, and ways of life. And internationally, progress has been made in recognizing the critical linkages between environmental conservation and preservation of indigenous ways of life.

The BNE ?ekwé Hearing has highlighted the ongoing commitment of Sahtú communities to play a leadership role in ?ekwé conservation. It has demonstrated the commitment of ENR to consider community-collaborative approaches that may not fit within standard "wildlife management" rubrics. And at the same time, the Hearing shone a spotlight on the weaknesses of the regional co-management system for tựch adíı established by the SDMCLCA, exposing the failures of the system to properly support and accommodate collaborative, cross-cultural processes and local structures for tựch adíı management. Hearing witnesses from Sahtú communities repeatedly pointed out that they have been saying the same things for many years, but their voices have not been heard or reflected in decisions.

The SRRB recognizes that perhaps the biggest challenge in 2ekwé conservation is also a major opportunity to renovate a system invented more than two decades ago so that it reflects the current and rapidly evolving realities in governance and environmental stewardship. The risks of failing to address this challenge are great – we all fear the prospect that 2ekwé populations will decline even further if collective action isn't taken. The SRRB is grateful to Hearing witnesses for sharing a common vision of healthy 2ekwé populations and culturally vibrant communities,

and for being open to considering solutions for moving forward, zełehé zeghálats'eda (working together).

The 39 decisions that the SRRB presents in this report are an effort both to define the current situation as articulated through Dene náowerá (traditional knowledge) and science evidence presented during the Hearing; and to chart a path for zełehé zeghálats'eda and zekwé conservation. The SRRB recognizes that implementing action items embodied in these decisions will entail a lot of work for all the co-management partners. Some of the work involves building a solid foundation of trusting relationships – if this can be achieved, the rest of the work will no doubt be inspiring, innovative, and beneficial for both people and zekwé.

Appendix 1: Key Terms and Acronyms

Key terms and acronyms are used to identify agencies, species, and a number of other frequently-referenced subjects in this Report. These subject-acronym/term pairs are defined once, upon first instance of occurrence. They are then consistently and exclusively identified as acronyms or terms throughout the rest of the Report. However, acronyms and terms are spelled out in all Hearing decisions, to ensure full clarity.

Pehdzo Got'ıne Renewable Resources Council (see also RRC)

2ekwę́ barren-ground caribou

ACCWM Advisory Committee for Cooperation on Wildlife Management

ACIA Arctic Climate Impact Assessment

BNE Bluenose East ?ekwę́ (caribou)

BNW Bluenose West ?ekwé

COSEWIC Committee on the Status of Endangered Wildlife in Canada

Déline plan Refers to Belare wile Gots'é ?ekwé – Caribou for All Time: A Déline

Got'ıne Action Plan, DEWG³⁰⁴

Dene náowerá traditional knowledge

DEWG Déline ?ekwé Working Group; footnoted references are all to *Belare wile*

Gots'é ?ekwé – Caribou for All Time: A Déline Got'ine Action Plan, 2nd

edition, May 20, 2016, available online at PR, folder 2, item 3.

ENR NWT Environment and Natural Resources

GNWT Government of the Northwest Territories

HCP Healthy Country Planning

HT Hearing Transcript, available on the PR, folder 5; references include page

number and line number(s) in parentheses.

KHTO Kugluktuk Hunters and Trappers Organisation

NWMB Nunavut Wildlife Management Board

NWT Northwest Territories

³⁰⁴ Note that the DEWG spells Belarewile as one word, whereas the SRRB is spelling the term as two words. The SRRB recognizes that spellings will evolve as terminology research continues.

PR Public Registry, available online at www.srrb.nt.ca; documents on the PR

are referenced by folder and item number. All references are to SRRB

BNE Hearing PR 2016, except where WRRB is referenced.

RRC Renewable Resources Council (see also ?ehdzo Got'ıne)

SDMCLCA Sahtú Dene and Métis Comprehensive Land Claim Agreement of 1993

SHS Sahtú Harvest Study

SRRB Sahtú Renewable Resources Board

SSI Sahtú Secretariat, Incorporated

SYC Sahtú Youth Connection
TAH Total Allowable Harvest

TG The Government

WRRB Wek'èezhìi Renewable Resources Board

Appendix 2: Dene Gokedá (Dene Language Glossary)

The terminology used in this document does not attempt to reflect the various dialects of the Sahtú. Rather, it draws upon concepts used in Délįnę's *Belare wile Gots'é ?ekwé* plan, as well as some terms contributed by SRRB Board members in completing this Report. The terminology from the January 8, 2016 edition of the Délįnę plan was verified by Jane Modeste. University of Toronto linguist Keren Rice reviewed the SRRB's expanded version for consistency.

Terms and spellings in this Report represent the Board's best knowledge at this time. The SRRB recognizes that more research is required to continue developing Dene terms, concepts and standardized spelling related to 2ekwé conservation.

Note that the prepositions go- and ka- mean "of" and are used with several words; these are listed by the root word. The "technical" English translation is listed first, followed by a more literal translation or explanation. The root word or the word preceded by preposition will be used in the Report as is syntactically appropriate. English translations will be provided for first instances, within each section, of both a root and a preposition+root.

Several Dene terms, because of their frequency of use and fundamental significance to incorporating Dene into this discussion are not translated throughout the Report. These terms are:

- zekwé (caribou)
- Dene náoweré (traditional knowledge)
- ?ehdzo Got'ınę (Renewable Resources Council also occasionally referred to in documents and by witnesses as RRC)

Otherwise, Dene words and phrases are translated upon the first instance of occurrence in each section of the Report, and then are used consistently and exclusively in Dene throughout the rest of that section. However, Dene words and phrases are translated in all Hearing decisions, to ensure full clarity. The "technical" translation only is provided in the main text. This glossary includes more literal translations or explanations. An alphabet and pronunciation key is provided as an appendix to the Déline plan.

³⁰⁵ Déline First Nation, Déline Land Corporation, and Déline ?ehdzo Got'ine. 2016 (January 8), PR 2.02.

Dene	English
Parakə Túé	Horton Lake
?e?a	laws, principles, policies
?ededáhk'á	habitat, range; a good home, where people can find food
zededáhk' á gozekwé	caribou habitat; habitat of caribou, where caribou can find food
?edets'é k'áokerewe	governance; they are own their bosses, but they have to follow the law, self-regulation
Pedets'énanede hádé máhsı gha.	If only you would go back to your herd, then thank you.
?ehda _Į la	Caribou Point
2ehdanagokw1	climate change; changing weather from a long period of certain climate to another period of warmer or colder climate
zehdzo got'inę	harvester(s); hunter(s), trapper(s)
?ehdzo Got'inę	Renewable Resources Council(s) when capitalized
?ehdzo Got'ınę Gots'é Nákedı	Sahtú Renewable Resources Board; helper of the 2ehdzo got', nę
zehtsée ke	grandparents
Pehtsóo; zehtsóo	Prophet; a grandfather of great stature
?ejire	muskox
?ekwę́, go?ekwę́	barren-ground caribou, of barren-ground caribou
zekwé zeza hegerichá gha gózo	enforcement; we all have to respect the laws of the caribou
zekwé hé dágóht'e	caribou status and trends; how caribou are doing
zekwé hé Dene ts' ₁ l ₁	sustaining relationships with caribou; being caribou and Dene together
zekwé hé díga ts'įlį	sustaining caribou-wolf relationships; being caribou and wolf together
2ekwé gha máhsı ts'enįwe	ceremonial harvest; We thank the Creator for 2ekwé.
zekwé gha né k'éts'edí	land use planning; taking care of the land for the caribou
?ekwę́ k'éts' įnę gha daradé?	population trend; Are the caribou declining?
zekwé łákídáka	Pekwé predators; they kill the caribou
zekwé náts'ezé zeza	harvest management; policies about harvesting caribou

2ekwé náts' ezé gha k'ínats' eneta caribou harvest monitoring; watching or keeping an eye

on caribou hunting

zekwé né golek' ó calving ground

rılígu néné; gorılígu néné cold climate, northern ecosystem; cold land, of a cold land

rełehé reghálats'eda collaborative, co-management; working together

zits'é moose

71ts'ere Túé Hottah Lake

asjı godi biodiversity; all living things

asíı godí hé Dene ts'ılı hé biocultural

Ayı́ı ?ekwé ot'e? herd definition; What do we mean by barren-ground

caribou?

bedzio adult male caribou (big)

belare wile gots'é zekwé caribou for all time

dánít'a why

Dánít'a zekwé k'éts'ıne gha

daradé?

population trends; Why are the caribou populations

declining?

Dela Got'ıne People now inhabiting the community of Colville Lake

Déline Got'ine People now inhabiting the community of Déline

Dene zareyóné zedegha k'áowe. Every person is his or her own boss.

Dene béré kats'enjwe alternative harvest (we hunt and gather all kinds of

different Dene foods) – linked to the totality of the Sahtú

Needs Level

Dene edariyə a capable person, a capable person, who gains who obtains

his or her knowledge, power, and hence abilities through

experience

Dene gokedó Dene language

Dene náowerá traditional knowledge; Dene knowledge

Dene ts'ılı Dene ways of being; being Dene; the whole concept of

what being Dene (being who we are) means to our

grandparents

denecho grandparents

Denecho kə gok'étá náts'ezé. We have to hunt like our grandparents did.

Dícho asíı k'ets'ene ajá t'á náze

gha báts'odı

It's gone down so we're going to let it rest.

díga wolf

godi kehtsi agreement

gogha horíla at risk; in danger

Gozó begho gots'ede nidé dzá

ot'e.

When people talk about them [caribou] too much, it's not

good.

goregho shrubs hé and, with

hegerichá respect; respectful behaviour

K'áhsho Got'ıne Encompasses people now inhabiting the Sahtú District,

including the communities of Fort Good Hope and

Colville Lake

k'inats'eneta monitoring; watching or keeping an eye on

godedí wildlife officers enforce harvest rules and make people

feel like criminals and poachers

łata gożekwę caribou migration corridor

máhsi cho thank you very much, welcome, hello

móla non-Dene people

móla gokedó English language; non-Dene people's language

náowerá, gonáowerá knowledge, of knowledge

náts'ezé, kanáts'ezé harvesting or hunting; hunting something

náts'ezé dáhk'á harvesting zones

né káríla k'ets'edí land protection, conservation areas; lands set aside, we're

protecting them

néné land; homeland; territory

narek'ó wildfire, forest fire

sahcho grizzly bear

Sahtú In this document, mainly refers to the Sahtú Region

defined in the SDMCLCA (in other contexts refers to

Great Bear Lake)

Sahtú Got'ıne the people of the Sahtú Region; has historically referred to

the people of Great Bear Lake)

Sahtú Got' ine hé zekwé hé

gozılígu néné

cold climate people and caribou

shúhta gozepé northern mountain caribou

Shúhta Got'ıne People who historically inhabited the Mackenzie

Mountains, and now are primarily located in Tulit'a and

Norman Wells

Tehkaıcho D\u00e1 Johnny Hoe River

tịch'ádíi, gotịch'ádíi wildlife, wildlife of, or of wildlife – eg. Sahtú gotịch'ádíi

(wildlife of the Sahtú), management got,ch'ádíı (wildlife

management)

todzı boreal woodland caribou

tsia caribou calf (can also refer to yearling)

tsída female caribou

yárégo young male (smaller) caribou

Appendix 3: List of Hearing Appearances

Affiliation Name

Colville Chief Chief Wilbert Kochon
Colville legal counsel Jennifer Duncan
Colville legal counsel Larry Innes
Colville Science Advisor Norman Barichello
Colville witness Barthy Cotchilly

Colville witness
Gordon Taneton

Déline community member Leon Modeste Déline community member Raymond Taneton Déline witness Gina Dolphus Déline witness Morris Nevelle Déline witness Walter Bayha ENR legal counsel Sarah Kay Brett Elkin ENR witness ENR witness Bruno Croft

ENR witness Heather Sayine-Crawford

ENR witness

ENR witness

ENR witness

John Boulanger

ENR witness

Lynda Yonge

Fort Good Hope witness

Fort Good Hope witness

Frank T'seleie

Fort Good Hope witness

Harry Harris

Sahtú Secretariat, Inc. Ethel Blondin-Andrew

Sahtú Youth Connection witness Jordan Lennie SRRB Board Chair Michael Nevelle SRRB Board member Camilla Rabisca SRRB Board member Chief Leonard Kenny SRRB Board member George Barnaby Jeffery Walker SRRB Board member Lesley Allen SRRB Board member SRRB Board member Paul Latour SRRB legal counsel Lorraine Land SRRB Science Advisor Colin Macdonald SRRB Special Advisor Frederick Andrew SRRB Special Advisor Keith Hickling SRRB Special Advisor Leon Andrew SRRB staff Daniel T'seleie SRRB staff **Deborah Simmons** SRRB staff Joe Hanlon

Tlįcho Government observer Joseph Judas
Tulit'a Chief Chief Frank Andrew
Tulit'a witness Joseph Judas
Chief Frank Andrew

Lori Ann Lennie

Tulít'a witness Joe Bernard Tulít'a witness Jonas Peter

SRRB staff