



TESLIN TLINGIT COUNCIL

March 14, 2012

Shirley Ford, Chair,
Yukon Fish and Wildlife Enhancement Trust,
Box 31022,
Whitehorse, Y1A 5P7

Re: Final Project Report: Nisutlin River Moose Management Planning

Dear Mrs. Ford,

Please find enclosed the final report *Nisutlin River Region Moose Management- 2011/2012*. This report documents the work done on this project and how we used the much appreciated funding from the Trust.

For reasons outlined in the report, we were unable to complete many of the deliverables identified in our ambitious proposal. We did make important headway on what will likely be a multi-year initiative.

We believe that this project deals with a situation that is not uncommon in the Yukon. We intend to share our experiences with other governments and will credit the Fish and Wildlife Enhancement Trust in these discussions. We would be pleased to give a briefing to the Trust on details of this project if you wish.

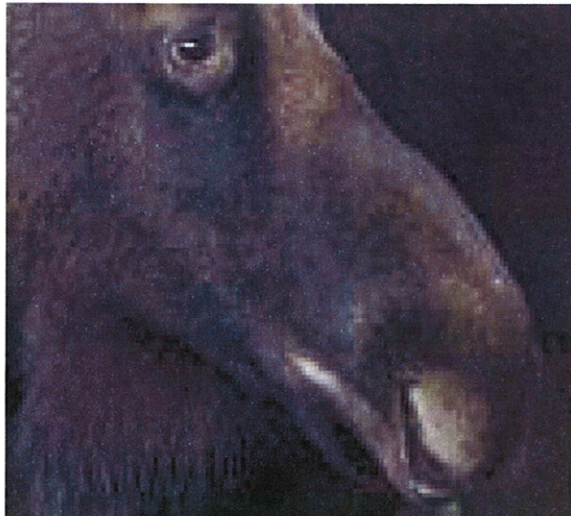
Please extend our thanks to members of the Trust and to your Executive Director, Ian Pumphrey.

Yours sincerely,
TESLIN TLINGIT COUNCIL

Tracy Boyes,
Renewable Resources Manager

Nisutlin River Region

Moose Management- 2011/2012



Final Report to the
Yukon Fish and Wildlife Enhancement Trust

Prepared by
Teslin Tlingit Council Department of Lands and Resources

March 2012

Summary and implications

The Yukon Fish and Wildlife Enhancement Trust granted the Teslin Tlingit Council \$10,000 in 2011-12 to support multi agency planning to address moose declines observed by citizens in the Nisutlin River Region. The funding had been sought to complete technical analyses of harvests and populations, to further citizen participation, and to develop a realistic action plan with other governments.

The project did not complete all these actions. Most of the work involved coming up with an estimate of bull and cow harvests that were outside the reporting system of the Yukon government, measuring the opinions of citizens about possible management actions, helping citizens understand competing views on the moose population status held by the Yukon Government and the Teslin Tlingit Council, and developing some ideas for Teslin Tlingit to consider to understand and manage their harvesting.

The results have broad application elsewhere in the Yukon, especially to the management of moose hunting in areas that are intensively hunted and that are surrounded by very lightly hunted areas that have some capacity to sustain the concentrated harvest.

The results also give us pause to consider two assumptions that are regularly made. One is that First Nation harvests are similar in number and distribution to harvests by licensed residents. In the absence of reliable shared harvest data, YTG regularly assumes this when determining moose quotas for big game outfitters and in assessing the status of moose in aerial census blocks. The second assumption is that we can come up with reliable harvest estimates based on reported harvests from a sample of First Nation households interviewed in their homes and camps. This project, particularly the discussions leading to a new estimate suggest that substantial corrections are needed to account for personal underreporting, unreported harvesting for others, and misreporting of cows as bulls. The actual harvest, particularly the cow harvest is much higher, and probably has been much higher for some time.

The results of this project also suggest that the Fish and Wildlife Management Board, Renewable Resources Councils, and governments need to factor in wounding losses in harvest assessments and training, and put a high priority on increasing wolf harvests.

Introduction

This paper summarizes work supported by a \$10,000 contribution from the Yukon Fish and Wildlife Enhancement Trust (YFWET) in the 2011/2012 fiscal year to the Teslin Tlingit Council (TTC) that allowed intensification of planning to address community concerns about declining moose numbers in the Nisutlin River Region. While the project made limited headway due to many factors, it has made a major contribution to moose management in the Yukon through the increase in understanding about underestimation of moose harvesting by First Nation hunters, the extent of wounding losses (likely across all Yukon hunters), and the ability for moose to sustain spatially concentrated harvesting.

The Teslin Tlingit Council's Department of Lands and Resources Renewable Resources department has two full time staff, two seasonal part time Game Guardians, and employs a contractor each year to interview between 75 and 120 Teslin Tlingit households about their harvests. Each of the five clans is represented by a member who sits on the Teslin Tlingit Renewable Resources Council and the Teslin Renewable Resources Council. The Department has a Fish and Wildlife Act, but there are no regulations, there is no enforcement capacity, and the Yukon Department of Environment's Conservation Officer Services Branch has not continued an enforcement agreement. TTC's Justice Department is now implementing a new Justice Act. The Lands and Resources Department has a digital database of reported harvest information back to 1997. The contribution from the Yukon Fish and Wildlife Enhancement Trust allowed TTC to obtain the capacity to intensify the management planning work, specifically to complete needed analyses, and to evaluate management options available to TTC's Department of Lands and Resources.

The issues and work undertaken

Since the mid 2000s households, guardians, and members of both Renewable Resources Councils expressed concern about declining numbers of bull moose on the Nisutlin River, heavy road hunting pressure on the South Canol Road, increasing wolf numbers on the River, declining antler size of bulls seen on the River, and trail building off the South Canol Road. Participants at a workshop in May 2010 demanded action. In response, TTC undertook many actions (Appendix A). The Yukon Government Department of Environment completed an aerial moose census in this area in December 2010, the fourth since 1986, and the first aerial wolf census in February 2011. In May they advanced revisions to a

harvest data sharing agreement drafted by TTC a year earlier, and in September re-advanced this agreement and a Terms of Reference for a collaborative moose harvest planning process. TTC's legal group is considering this agreement under the new Justice Act.

TTC's work, supported by the YFWET funding that allowed hiring a consultant, began in April. By June it became clear that the harvest data seriously underestimated total and cow moose harvests. By August there were big differences in perceptions of moose population status between citizens who knew of declining bull numbers on the road and river and Yukon government biologists who saw a stable or increasing moose population in the larger region based on the aerial surveys. These greatly increased the complexity of the planning work. The aerial census results did not suggest a crisis situation over the broader region.

Work began in June with the clan representatives on the Teslin Tlingit Renewable Resources Council (TTC RRC) to come up with more accurate estimates of total moose harvests in the Traditional Territory. This involved five meetings to discuss and review separate estimates for wounding losses, underreporting of bulls and cows in the harvest interviews, misreporting of cows as bulls, harvests for others including 'trade and barter', harvests by Tlingit's living in other communities, and harvests by First Nation hunters outside the regular Yukon Government hunting season. To TTC's knowledge, this sobering exercise had not been undertaken by a Yukon First Nation in the past, and the results suggested much higher harvests, particularly of cows, than had been expected (Appendix B), although the total harvest estimated in this process seemed reasonable to all participants.

Families appreciated individual, hour-long visits in early July with 75 Tlingit households in Teslin. The interviewer explained the moose and wolf aerial counting procedures and results and the Nisutlin moose situation. In order to quantify opinions, the interviewer asked people to rate their level of agreement with nine statements (Likert scale survey) related to moose management. Individuals were given a page listing their personal harvest information that was in TTC's harvest data base so they knew what information was being used and to provide them with an opportunity to correct any errors. The interviewer asked them about their harvests in the previous year. He emphasized the need to limit harvests to one Nisutlin region moose per household and explained the moose planning work. Hunters appreciated this information. With regard to the wolf counts, many felt that some wolf packs must have been missed.

At the Annual General Assembly in mid July, Teslin Tlingit Clan representatives and Leadership supported resolutions continuing the voluntary one-Nisutlin-moose-per-household-limit and the closure of moose hunting in the Nisutlin River Region from 1 October to 1 January, and a notice of this was mailed to all citizens. The development of a policy was also accepted where the Government would harvest only bulls for gatherings and celebrations.

In late July TTC explained the results of the household visits and Likert Scale survey results to the TTC RRC and Game Guardians. Citizens increasingly viewed the problem as a low bull to cow ratio, and some felt that switching their harvest to cows would help. In mid August the Teslin RRC supported educational actions proposed by TTC to reduce hunting pressure on the South Canol Highway and Nisutlin River.

In late August TTC communicated through the media (Appendix C) that bull declines along the road and river were a problem, asked all hunters to hunt elsewhere, and requested citizens to reduce bull and cow harvests. Yukon Government's biologists did not support this information or request, indicating that TTC had no authority to make requests of non-TTC citizens, and YTG would not allow TTC signs on crown lands. They explained that their surveys showed a stable or increasing moose population in the region. Game Guardians began two-per-week patrols and helped citizens understand the need to limit bull and cow harvests. YTG advanced a Terms of Reference for a planning process over the winter that included harvest data sharing and joint media releases, but TTC felt this was premature and that they could not do the requested work within their proposed time frame.

In late November the Department of Lands and Resources held citizen meetings in Whitehorse and Teslin to discuss the harvest estimates and presented the results of citizen support for statements related to moose management. With regard to the apparent inconsistency between the YTG and TTC versions of the moose situation, several 'stories' were advanced about what could be happening. It was not a case of who was right, but considering how this productive and dense population that was increasing regionally was responding to what was now seen to be a continuing very high bull and substantial cow harvest concentrated on the western edge of the larger census area. With ingress from moose born in adjacent feeder areas, cow numbers in these hunted areas were probably stable, but bull numbers in these hunted areas were low and declining. Much discussion considered the interpretation of declining bull: cow ratios that lay at the heart of the disagreement between YTG and TTC. Regionally,

in the large moose census area, the declining ratio was due to stable bull numbers compared to increasing cow numbers. In the intensively hunted areas the declining ratio was due to declining bull numbers in relation to stable cow numbers.

At these meetings there was also substantial discussion about harvest rates, how they were calculated, and what they meant. Typically these are calculated as a percentage by dividing the harvest number by the population number. YTG, in the absence of First Nation harvest information, assumed that that they take the same number of moose as licensed residents. Using this harvest estimate and the estimated number of moose in the 3 sub zones (10-21, 22, and 23) from their counts, they felt there was a low harvest rate and little risk. TTC, using our new and higher estimate of cow and bull harvests, and considering the smaller intensively hunted area, could see that the harvest rate was substantial but depended on the assumption about the moose population that the localized harvest was drawing from. In effect this comes down to a choice about whether to trust hunters' observations of trends of bull and cow moose numbers in the intensively hunted areas to give some idea of the ability of feeder areas to sustain the localized harvest, or whether to assume moose mix and move throughout the aerial count area and move to fill the gaps left by moose taken by localized hunting. Citizens appreciated this difference but know what they see. They also understood and appreciated some of the wide and small movements of the moose equipped with satellite collars in this region in recent years.

TTC RRC members, Lands and Resources staff, Game Guardians, and the few citizens at these meetings appeared to be comfortable with this interpretation of the situation, with the harvest estimate, and advanced ideas about how to move ahead. Concerns remained about the need to deal with wolves. Guardians indicated that moose harvest levels seemed to have been lower in the fall of 2011. Citizens continued to express concerns that the hunting pressure on the South Canol Highway by all hunters was excessive, but saw the hunting pressure on the Rose, Nisutlin River, Nisutlin Bay and Morley Bay as an issue for TTC members. Rather than focus energy likely to be fruitless on changing YTG hunting regulations, it was important to focus on Tlingit hunting.

In January 2012 TTC Department of Lands and Resources considered a first draft of an issues-perspectives-actions paper, and in March reviewed these issues and actions with TTC RRC members (summarized in the following section).

Moose management issues and possible directions

The following text is from a discussion paper currently under review by TTC Department of Lands and Resources (DLR) and the TTC RRC. Readers are cautioned that the perspectives expressed are being discussed and have not been accepted, rejected, or approved by TTC's Department of Lands and Resources, or the Teslin Tlingit Council.

Issue 1: Harvests of cow moose are higher than expected in the Nisutlin River valley, and appear to be being sustained, but should not increase. Harvests of cow moose in the Delta and Bay have been way too high and should stop for awhile in the Delta and Bay to let numbers build in these areas.

Possible Actions

1. In order to rebuild cow moose populations where they are already depleted, consider closing all cow moose hunting below (30 mile?) on the Nisutlin River and in Nisutlin Bay and Delta down to Morley Bay for 5 years.
2. In order to rebuild cow (and bull) populations where they are already depleted consider focusing winter wolf trapping in the same areas as above.
3. In order to prevent increases in cow harvests elsewhere in the valley consider limiting cow harvests possibly using a system where there is a draw for a small number of permits on the Nisutlin River and tributaries, for 5 years.
4. In order to have a base for harvest monitoring, patrols and for use in winter by wolf trappers, consider building a patrol cabin on the Nisutlin River shore possibly near the Nisutlin/Wolf River junction.
5. In order to determine trends in cow numbers wintering on the lower Nisutlin River, Delta and Bays, some form of monitoring will be required.

Issue 2. Harvests of bull moose are greater than can be sustained in the Nisutlin valley, Delta and Bay.

Possible Actions

1. In order to increase the breeding by prime bulls, decrease the disturbance of cow groups with these bulls, and constrain total bull harvest, consider limiting the hunting by Teslin Tlingit of large antlered prime bulls in the valley and on the South Canol road for 5 years.
2. In order to prevent bull harvest when the meat is poor, continue the hunting closure October 1st to January 1st in the 3 sub zones GMS 10-21, 10-22, and 10-23.

3. TTC DLR Game Guardians will continue to patrol the Nisutlin, Rose, Morley and Quiet areas and the South Canol area.
4. TTC and DLR will work with Yukon Environment and Carcross Tagish First Nation Lands and Resources to develop options to return the Teslin Burn to “Bread Basket” status, as it was in the 1970’s and 1980’s, to provide other nearby areas for Southern Lakes hunters to acquire meat.

Issue 3. The bread-basket of the Teslin Tlingit is not well protected.

Possible Actions

1. Options for protected area status need to be re-examined for parts of the Nisutlin valley and over to Wolf Lake. Smaller habitat protection areas should be considered.
2. TTC DLR will budget for frequent patrols to detect citizen and outsider hunting as winter access improves with the possible winter opening of the South Canol up to Sydney Creek. An overall enforcement/compliance strategy needs to be developed to protect the Nisutlin bread basket.
3. TTC DLR will continue to work with land management agencies and extraction companies to limit all-season roads into feeder areas.

Issue 4: Education, patrols, household visits and resolutions passed at General Assemblies are valued but are not influencing the hunting decisions made by many citizens.

Possible Actions

1. An overall harvest management goal should allow citizens to hunt with greater selectivity in areas that are significant to their families’ heritage, and to provide some incentives to encourage them to hunt in other lightly-hunted, perhaps more remote areas.
2. TTC DLR needs to set limits on cow and bull harvests in particular areas. It is time to talk total numbers not numbers per household.
3. TTC DLR will have to secure legal opinions on the question of whether various restrictions on hunting, particularly those that require greater selectivity in the type of moose taken, to meet conservation (needs), actually constitute a restriction on individual hunting rights. A related question is whether TTC needs to wait for a conservation crisis before implementing legislative measures to curb harvest rights in particular areas.
4. TTC DLR will develop greater enforcement capacity to protect lands and wildlife through training and new legislation under the new Justice framework.

Issue 5. Current harvest information is expensive, incomplete and misleading.

Possible Actions

1. Consider developing a harvest reporting compliance and enforcement strategy that will phase in and test a mandatory reporting regime in 2013 where all citizens must report all moose they kill within (10) days, throughout the TTTT.
2. Consider providing monthly or twice-monthly harvest totals to TTCRRC members for distribution within their clan as the clan decides. Feedback is essential. Families who regularly hunt certain areas need to know total moose harvests from these areas.
3. Consider operating a hunter check station on the Nisutlin River, and collaborate with BC and YTG on other roadside check stops each fall.
4. TTC DLR should obtain a legal opinion on the 'trade and barter' provisions in our final agreement so that citizens are clear on the intent and how to use these rights. Citizens will be informed.

Issue 6. TTC trapline holders are not taking enough wolves.

Possible Actions

1. On Category 1 trap lines where less than 3 wolves have been taken per year, TTC should authorize assistant trappers to trap wolves for 5 years. During this time, TTC needs to pursue legislation and policy reform for trap line management.
2. TTC DLR needs to work with YTG to provide practical training opportunities to allow interested individuals to learn humane trapping, wolf trapping techniques, and meet requirements to trap.
3. TTC DLR will meet with the 9 trapline holders within the Nisutlin River Region (NRR) to clarify their interest in wolf trapping and determine what could be done to increase their level of wolf trapping activity.
4. TTC DLR needs to implement practical and affordable incentives to help citizens spend more time on their traplines within the traditional territory.

Issue 7. BC and YTG are not doing enough enforcement, but are cooperating with studies and meetings and are ready for a collaborative management regime.

Possible Actions

1. TTC will consider providing Yukon Environment with a summary of the total harvest estimate, in order to support realistic harvest management discussions.
2. TTC will prioritize enforcement and compliance needs for Nisutlin moose.

3. TTC will continue to work with BC and YG to form new enforcement agreements that build on new TTC legislation and emerging enforcement capacity.
4. TTC DLR will consider developing Memorandums of Understanding with neighbouring First Nations to clarify shared moose management goals and priorities, and coordinate management actions.
5. TTC DLR will continue joint patrols and effective communication with all patrol/enforcement agencies and neighbouring First Nation governments.
6. TTC DLR will continue to develop the necessary enforcement muscle to protect NRR moose, in collaboration with other agencies.

Issue 8. TTC and other hunters are leaving a lot of wounded moose to scavengers.

Possible Actions

1. TTC leaders will consider confirming their desire to see low wounding losses in TTTT at the next Annual General Assembly.
2. TTC DLR will assist TTC RRC and TRRC in promoting marksmanship and other skills related to sound and ethical harvesting practices.

Issue 9. Nisutlin valley resources especially moose should be part of scenario planning for Tlingit resilience to climate and social change.

Possible Actions

1. TTC will consider training to build capacity in scenario planning and other planning to increase Tlingit resilience to environmental and social changes, focusing on the Nisutlin River Valley. Youth need to be an important part of this planning.

Next steps

The Substantial ongoing work that remains would challenge the capacity of the territorial government, much less the two full time staff in TTC's Department of Lands and Resources, other staff and Council members. Moving from an unregulated harvest regime to a structured system to track and distribute pressure away from areas to allow recovery is a huge undertaking and will take time.

- **Seek legal advice on the feasibility and timing of actions**

Many questions are emerging about the extent to which legislation under the Justice Act and Self Government Agreements can be used to manage wildlife harvesting by citizens on and off settlement land. Citizens have rights in the Final Agreement and also have opportunities, with other Yukon residents to harvest wildlife on crown land under the Yukon Government and federal legislation. The structure of the systems that emerge will reflect Ha Kus Teyea (Tlingit law), reflecting the role of clans as in the new Justice Act.

- **Consult with Executive Council and Leadership regarding their appetite for controversial actions and appropriate timing**

Government actions and priorities are presented to the Annual General Assembly in July each year. So far the Assembly has been comfortable passing resolutions calling for voluntary action. Legislative action in the absence of a perceived crisis may be less easily supported. 2012 is an election year for the Teslin Tlingit, and this causes delays in most governments, however it is not apparent if or how an election will affect the decision making.

- **Keep citizens informed and addressing concerns**

The Department of Lands and Resources and Teslin Tlingit RRC will inform and consult clans and citizens. Household visits and conversations between game guardians and families on the land are also important.

- **Sharing perspectives with Renewable Resources Managers in other First Nations and the Yukon Government Fish and Wildlife Branch**

Yukon-wide consultations in 2002 by the Fish and Wildlife Management Board considered several moose management systems suitable for everyone. However Yukon First Nations have limited

experience with structuring fish and wildlife harvesting by citizens. Some, like Selkirk First Nation have documented systems and rules that Elders recall that were in place in the late 1800s and early 1900s. Experimentation with management systems by others will be useful for our decision making process.

- **Designing and introducing an alternative harvest reporting system**

The discrepancy between the interview-source and group-estimate-source harvest numbers creates a serious problem for TTC. Without reliable and accurate harvest numbers, TTC cannot realistically participate in harvest management discussions with other governments (including quota allocations for outfitters), assess if management prescriptions are working, predict population status, or defend some requested changes to industrial plans. This is a significant challenge for this First Nation. Elsewhere in the Yukon this may be a significant challenge as well because the Yukon Government has regularly assumed that First Nation harvests mirror non-First Nation harvests in terms of number and distribution.

- **Coming up with a practical regime to increase wolf harvests**

Yukon-wide there is considerable need to test systems to increase wolf harvests in intensively hunted moose “breadbaskets”. First Nation families own most of the Nisutlin Valley traplines and vary in their willingness to allow experienced wolf trappers to work on their lines.

Appendix A: Project chronology

June 2011 - Request from Environment Minister that they consider

- Wildlife Regulation change proposal in 2011 –2012.
- Collaboration on informing the public that bull numbers per cow moose are declining
- Commitment to implement measures in the 3 GMS's moose conservation regime much earlier than 2014

July 2011 - Intensive harvest survey-- objectives were to

1. Inform TT citizens about last winter's moose and wolf counts in the 3 GMS's
2. Obtain reliable info on household moose harvests over the April 2010 to March 2011 period, and back to previous year if this data is missing
3. Inform people about patterns in moose hunting in the 3 GMS's
4. Seek opinions on management options that will be presented back to citizens and discussed at the AGA
5. Persuade people that providing reliable, accurate information on their hunting will help the moose and future generations

July –August 2011 – Meeting with the Teslin Tlingit RRC and the Teslin RRC

The goal is to discuss hunting limitations for TTC and Wildlife Regulation change request

August 2011 – Wildlife Management

Continue to restrict non-Teslin Tlingit Citizens (beneficiaries) Wildlife Harvest Permits for Category A lands within the 3 GMS

Wolf pelt incentive was increased to \$200.00/pelt in 2010 and TTC is continuing to offer this incentive to those who harvest wolves within the TT.

August 2011 -Media release

The goal is to discourage fall hunting by non-TTC hunters on the Nisutlin River

September 2011 - School Visits

The goal is to educate the children about the moose within the 3 GMS's, specifically conservation efforts that are necessary and why

November 2011 – Moose Workshop

Discuss the harvest estimates and present the results of citizen support for statements related to moose management.

Interview citizens regarding the *Estimates of Annual Total First Nation harvest*

March 2012-

Working with consultant and Teslin RRC to consult and write the Nisutlin River Region Moose Management Plan

Appendix B: Harvest Estimates

All harvest estimates have biases and potential errors, and it is important that these estimates are used in a manner that respects this. This information is currently in Table form, with columns for sex and rows for the type of death or cause of error, with a terse explanation of key factors in the estimation. TTC is not including this table in this report and is not releasing it at this time. These estimates and the group estimation process may be shared with particular groups as totals or as rates as decided by the Renewable Resources Manager at 867-390-2532.

Appendix C:

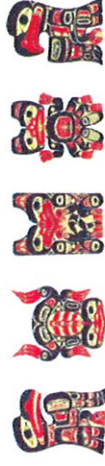
NOTICE TO ALL YUKON HUNTERS

The Teslin Tlingit Council (TTC) is asking you to **voluntarily refrain from hunting moose in the Nisutlin River Region** (GMS 10-21, 10-22 and 10-23) for this season.

Long term data indicates a consistent decline in the bull/cow ratios in these GMS. TTC is working extremely hard to **educate both Citizens and non-Citizen hunters** in order to facilitate effective Moose Management in the Nisutlin River Region. The bull numbers in this area remains a concern. We feel that Yukon hunters care about conservation and are therefore kindly asking for **your vital support**, as we have of our own Citizens.

Thank you/Gunalchish

For updates on the situation contact out Lands & Resources
Department (867) 390 2532 ex429



TESLIN TLINGIT COUNCIL